

Appeal Nos. 2015-1263, -1269

United States Court Of Appeals For
The Federal Circuit

DOUGLAS DYNAMICS, LLC

Plaintiff – Cross-Appellant,

v.

BUYERS PRODUCTS COMPANY

Defendant – Appellant.

Appeals from the United States District Court
for the Western District of Wisconsin, Case No. 3:09-cv-00261-wmc,
Judge William M. Conley

**NON-CONFIDENTIAL BRIEF OF DEFENDANT-APPELLANT
BUYERS PRODUCTS COMPANY**

March 16, 2015

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CERTIFICATE OF INTEREST

Counsel for appellant Buyers Products Company certifies the following:

1. The full name of every party or amicus represented by me is:

Buyers Products Company

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

Buyers Products Company

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the district court or agency or are expected to appear in this court are:

Thomas H. Shunk, Christina J. Moser of the Baker & Hostetler LLP law firm; Andrew J. Clarkowski and Michael J. Modl of the Axley Brynson, LLP law firm; Todd R. Tucker, now of the Calfee, Halter & Griswold LLP law firm; Jay R. Campbell and Joshua Ryland, now of the Tucker Ellis LLP law firm; Mark C. Johnson, Nicholas Gingo of the Renner, Otto, Boisselle & Sklar law firm

March 16, 2015

/s/ Thomas H. Shunk
Thomas H. Shunk

TABLE OF CONTENTS

| | |
|--|----|
| CERTIFICATE OF INTEREST | I |
| STATEMENT OF RELATED CASES | 1 |
| JURISDICTIONAL STATEMENT..... | 1 |
| STATEMENT OF THE ISSUES | 1 |
| NATURE OF THE CASE..... | 3 |
| STATEMENT OF THE CASE | 6 |
| I. The Previous Trial..... | 6 |
| II. The Previous Appeal | 7 |
| III. Proceedings On Remand | 8 |
| A. Summary Judgment Of Infringement And Validity | 8 |
| 1. Only Direct Infringement Was Considered And Found | 8 |
| 2. The Trial Court Used Two Conflicting Definitions Of “Support Frame” To Consider Indefiniteness And Anticipation/Obviousness..... | 9 |
| B. The Jury Trial On Damages | 11 |
| STATEMENT OF THE FACTS | 13 |
| I. The Claims At Issue And The Accused Products | 13 |
| II. Evidence Regarding The Meaning Of The “Support Frame” Limitation..... | 19 |
| III. Invalidating Prior Art | 20 |
| IV. The Evidence Regarding Damages | 24 |
| A. Douglas Offered No Evidence Linking Its Damages To Acts Of Direct Infringement..... | 24 |

| | | |
|-------------|---|----|
| B. | Even As An Indirect Damages Theory, Douglas’ Evidence Did Not Properly Analyze The “But-For” World..... | 25 |
| 1. | Since Buyers And Douglas Occupy Different Sub-Markets, Simple Application Of A Market Share Number Is Inadequate To Prove The “But-For” World | 27 |
| 2. | Buyers’ Survey Evidence Undermined A Blind Application Of Market Share Percentage To Lost Profits..... | 28 |
| C. | Douglas Failed To Apportion Profit, Or Royalty, To The “Smallest Saleable Unit” Or To The Invention..... | 30 |
| 1. | The Undisputed Evidence Showed Many Patented And Unpatented Features Other Than The 700 Patent That Were The Basis For Customer Demand | 31 |
| 2. | Douglas’ Royalty Analysis Improperly Focused On The Differential Pricing Between Douglas And Buyers Parts | 33 |
| 3. | Buyers’ Alternative Royalty Analysis | 34 |
| | SUMMARY OF ARGUMENT..... | 35 |
| | ARGUMENT | 36 |
| I. | Standards Of Review..... | 36 |
| II. | The Trial Court Over-Stepped This Court’s Mandate When It Entered Summary Judgment Of Infringement Of Claims 47, 48, 49 and 51..... | 38 |
| III. | The Trial Court Erred In Granting Summary Judgment Of Validity Of The Asserted Claims | 39 |
| A. | The Claims Are Invalid As Indefinite..... | 40 |
| B. | The Claims Are Invalid Because Of The Prior Art..... | 42 |
| IV. | The Trial Court’s Judgment Should Not Be Misconstrued As Finding Indirect Infringement, Because The Evidence Did Not Support Such A Finding..... | 47 |

| | | |
|------|--|----|
| A. | Both Inducement To Infringe And Contributory Infringement Require Proof Of The Requisite <i>Scienter</i> | 49 |
| B. | The Summary Judgment Evidence Offered By Douglas Did Not Discuss Buyers' <i>Scienter</i> , Only Its Knowledge Of The 700 Patent | 50 |
| C. | Douglas Offered No <i>Scienter</i> Evidence At Trial, But Buyers Affirmatively Showed Its Lack Of Intent To Infringe..... | 51 |
| V. | The Trial Court Erred In Entering A Judgment Based On The Jury Verdict, Or Alternatively In Failing To Grant A New Trial..... | 53 |
| A. | When Only Direct Infringement Is Found No Damages May Be Awarded For Alleged Acts Of Indirect Infringement..... | 54 |
| B. | Even On A Theory Of Indirect Infringement, Bero's Unsound Economic Testimony Tainted The Jury's Deliberations And Should Have Been Excluded From Trial | 56 |
| 1. | No "But For" Analysis In Bero's Market Share Approach | 56 |
| 2. | Bero's Adjustment Of The Historical Market Share Was A "Fudge Factor," Not A Quantitative Analysis | 57 |
| 3. | Bero Did Not Apportion The Damages To The Invention And His Testimony Should Have Been Excluded Or The Jury Should Have Been Expressly Charged On Apportionment..... | 58 |
| i. | Bero Did Not Consider The "Smallest Salable Infringing Unit" | 60 |
| ii. | Bero Did Not Factor In Other Patented And Unpatented Features That Drive Customer Demand | 61 |
| iii. | The Trial Court Erred In Failing To Give A <i>Garretson</i> Charge, And The <i>Georgia-Pacific</i> Charge It Gave Did Not Solve The Problem. | 63 |
| 4. | Bero Wrongly Included Foreign Sales..... | 65 |
| | CONCLUSION AND RELIEF SOUGHT..... | 65 |
| | CERTIFICATE OF SERVICE | |
| | CERTIFICATE OF COMPLIANCE | |

ADDENDUM

STATEMENT REGARDING CONFIDENTIAL MATERIAL

Pursuant to FCR 28(d)(1)(A), confidential material is indicated in the confidential version of this Brief by yellow highlighting. The confidential material so indicated has been redacted from the non-confidential version of this Brief by blackout. The redactions are required by the Stipulated Protective Order issued by the trial court.

Material has been redacted for two reasons: the material relates to Douglas' market share information ("market share") or the material could be used to derive Douglas' or Buyers' sales, cost or profit information ("sales information"). The material redacted on pages 12, 18 and 34 reflects sales information; the material redacted from pages 26 – 28 reflects market share.

TABLE OF AUTHORITIES

Cases

| | |
|---|--------|
| <i>Accenture Global Servs. v. Guidewire Software, Inc.</i> , 728 F.3d 1336 (Fed. Cir. 2013) | 38 |
| <i>Apple Inc. v. Motorola, Inc.</i> , 757 F.3d 1286 (Fed. Cir. 2014) | 37, 56 |
| <i>Aqua Shield v. Inter Pool Cover Team</i> , 774 F.3d 766 (Fed. Cir. 2014) | 60 |
| <i>Bettcher Indus., Inc. v. Bunzl USA, Inc.</i> , 661 F.3d 629 (Fed. Cir. 2011) | 49 |
| <i>BIC Leisure Products, Inc. v. Windsurfing Intern., Inc.</i> , 1 F. 3d 1214 (Fed. Cir. 1993) | 12 |
| <i>Commil USA, LLC v. Cisco Sys.</i> , 720 F.3d 1361 (Fed. Cir. 2013) | 49 |
| <i>Crystal Semiconductor v. TriTech Microelectronics International Inc.</i> , 246 F.3d 1336 (Fed. Cir. 2001) | 56 |
| <i>Dempsey v. Atchison, Topeka & Santa Fe Ry. Co.</i> , 16 F.3d 832 (7th Cir. 1994) | 37 |
| <i>Douglas Dynamics, LLC v. Buyers Products Company</i> , 717 F.3d 1336 (Fed. Cir. 2013) | 1, 38 |
| <i>DSU Medical Corp. v. JMS Co., Ltd.</i> , 471 F.3d 1293 (Fed. Cir. 2006) (en banc) | 49 |
| <i>Ecolab, Inc. v. FMC Corp.</i> , 569 F.3d 1335 <i>amended on reh'g in part</i> , 366 F. App'x 154 (Fed. Cir. 2009) ... | 49 |
| <i>Embrex, Inc. v. Service Eng'g Corp.</i> , 216 F.3d 1343 (Fed. Cir. 2000) | 54 |
| <i>Engel Indus., Inc. v. Lockformer Co.</i> , 166 F.3d 1379 (Fed. Cir. 1999) | 38 |
| <i>Ericsson, Inc. v. D-Link Sys.</i> , 773 F.3d 1201 (Fed. Cir. 2014) | 5, 63 |

| | |
|--|-----------|
| <i>Ethicon, Inc. v. U.S. Surgical Corp.</i> , 135 F.3d 1456 (Fed. Cir. 1998) | 37 |
| <i>Finjan, Inc. v. Secure Computing Corp.</i> , 626 F.3d 1197 (Fed. Cir. 2010) | 37 |
| <i>Garretson v. Clark</i> , 111 U.S. 120, 4 S. Ct. 291, 28 L. Ed. 371 (1884) | 5, 59, 63 |
| <i>General Electric Co. v. Joiner</i> , 522 U.S. 136, 118 S.Ct. 512, 139 L.Ed.2d 508 (1997) | 57 |
| <i>Georgia-Pacific Corp. v. United States Plywood Corp.</i> , 318 F. Supp. 1116 (S.D.N.Y. 1970) | 63 |
| <i>Global-Tech Appliances, Inc. v. SEB S.A.</i> , 563 U.S. ____; 131 S. Ct. 2060 (2011) | 49 |
| <i>Grain Processing Corp. v. Am. Maize-Prods. Co.</i> , 185 F.3d 1341 (Fed.Cir.1999) | 56 |
| <i>Huff v. Sheahan</i> , 493 F.3d 893 (7th Cir. 2007) | 37 |
| <i>Interwoven, Inc. v. Vertical Computer Systems</i> , 2014 WL 490996 (N.D. Cal. Feb. 4, 2014) | 55 |
| <i>Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.</i> , 554 F.3d 1010 (Fed. Cir. 2009) | 49, 52 |
| <i>Kumho Tire Co. v. Carmichael</i> , 526 US 137 (1999) | 57 |
| <i>Laitram Corp. v. NEC Corp.</i> , 115 F.3d 947 (Fed. Cir. 1997) | 36, 38 |
| <i>LaserDynamics, Inc. v. Quanta Computer, Inc.</i> , 694 F.3d 51 (Fed. Cir. 2012) | 59, 62 |
| <i>Microsoft Corp. v. AT&T Corp.</i> , 550 U.S. 437, 127 S.Ct. 1746, 1751 (2007) | 65 |
| <i>Mirror Worlds, LLC v. Apple, Inc.</i> , 784 F. Supp. 2d 703 (E.D. Tex. 2011), <i>aff'd</i> , 692 F. 3d 1351 (Fed. Cir. 2012) | 55 |
| <i>Nautilus, Inc. v. Biosig Instruments, Inc.</i> , 134 S. Ct. 2120 (2014) | 10, 40 |

| | |
|--|-------|
| <i>Panduit Corp. v. Stahl Bros. Fibre Works, Inc.</i> , 575 F. 2d 1152 (6 th Cir. 1978) | 25 |
| <i>Pennwalt Corp. v. Durand-Wayland, Inc.</i> , 833 F.2d 931 (Fed. Cir. 1987) (en banc) | 54 |
| <i>Power Integrations v. Fairchild Semiconductor</i> , 711 F. 3d 1348 (Fed. Cir. 2013) | 65 |
| <i>Sulzer Textil A.G. v. Picanol N.V.</i> , 358 F.3d 1356 (Fed. Cir. 2004) | 37 |
| <i>SynQor, Inc. v. Artesyn Technologies, Inc.</i> , 709 F. 3d 1365 (Fed. Cir. 2013) | 50 |
| <i>Taniguchi v. Kan Pacific Saipan, Ltd.</i> , ___ U.S. ___, 132 S. Ct. 1997 (2012) | 13 |
| <i>Trading Techs. Int'l v. eSpeed, Inc.</i> , 595 F.3d 1340 (Fed. Cir. 2010) | 37 |
| <i>Univ. of Pittsburgh of the Commonwealth Sys. of Higher Educ. v. Varian Med. Sys.</i> , 561 Fed. Appx. 934 (Fed. Cir. 2014) | 64 |
| <i>Versata Software, Inc. v. SAP Am., Inc.</i> , 717 F.3d 1255 (Fed. Cir. 2013) | 59 |
| <i>VirnetX, Inc. v. Cisco Sys.</i> , 767 F.3d 1308 (Fed. Cir. 2014) | 5, 59 |
| <i>Vita-Mix Corp. v. Basic Holding, Inc.</i> , 581 F.3d 1317 (Fed. Cir. 2009) | 52 |
| <i>Warsaw Orthopedic, Inc. v. NuVasive, Inc.</i> , 2015 U.S. App. LEXIS 3133 (Fed. Cir. Mar. 2, 2015) | 60 |

STATEMENT OF RELATED CASES

A previous appeal in this action resulted in the May 21, 2013, Opinion of this Court, *Douglas Dynamics, LLC v. Buyers Products Company*, 717 F.3d 1336 (Fed. Cir. 2013) (hereinafter, “*Douglas I*”).¹

JURISDICTIONAL STATEMENT

The district court had subject matter jurisdiction over this patent infringement case pursuant to 28 U.S.C. § 1338(a). This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

STATEMENT OF THE ISSUES

This appeal presents the following issues:

1. The trial court erred in granting summary judgment of infringement of claims 47, 48, 49 and 51 of the 700 patent, because those claims were not within the scope of this Court’s mandate.
2. The trial court erred in granting summary judgment of no invalidity of all asserted claims, because the claim phrase “support frame” is indefinite, or because the claims are anticipated or rendered obvious by the prior art.

¹ The *Douglas I* Opinion can be found in the Joint Appendix at pages JA6894 - JA6919, and is bound with this Brief.

3. The trial court erred (1) in admitting the testimony of plaintiff's damages expert, Richard Bero, (2) in failing to enter judgment in Buyers' favor (or alternatively, judgment for zero dollars) due to the absence of proof of damages, and/or (3) in failing to grant a new trial on damages, because:
 - a. Bero's analysis was premised on a theory of indirect infringement, but the trial court entered judgment of direct infringement only;
 - b. Bero did no legitimate "but for" analysis – his simplistic use of market share was contrary to the undisputed evidence;
 - c. Bero did not apportion royalties or lost profits to the smallest saleable unit embodying the invention, nor among the patented and other unpatented features that drove customer demand;
 - d. Bero included sales of the product in Canada, even though Douglas waived claims under 35 U.S.C. § 271(f); and,
 - e. The trial court refused to charge the jury that "Douglas must give evidence tending to separate or apportion Douglas' damages between the patented feature and any unpatented features that drive demand for the product".
4. If the trial court's judgment is construed to be one for indirect infringement, then the trial court erred in granting summary judgment to Douglas and

failing to grant summary judgment or JMOL to Buyers on that issue, as well as failing to charge the jury or seek the jury's verdict on that issue, as there was no evidence of the necessary *scienter*, and substantial evidence to the contrary.

NATURE OF THE CASE

This appeal concerns claims 45, 47, 48, 49 and 51 of U.S. Patent No. RE35,700.² Those claims are directed to a vehicle mounted snowplow assembly that is meant to be attached to a commercial truck – and the claims all include the truck as a limitation:

45. A vehicle mounted snowplow blade assembly comprising
a vehicle having a frame member and a bumper,
a mounting frame fixed to the frame member and located generally behind the bumper,
a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,
a support frame connected to the A-frame, and
wherein the A-frame and the support frame are connected to the mounting frame for pivotable movement of the A-frame about a

² U.S. Patent No. RE35,700 is entitled “Removable snowplow assembly with pivotable lift stand,” and names Gary E. Watson, James R. Doornek, and Thomas P. Fechter as inventors. JA105 - JA124 (bound with this Brief). All patents are referred to by the final three digits of their numbers after initial citation in this Brief.

generally horizontally extending pivot axis and for affording removal of the A-frame and the support frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

(claim 45, JA121 emphasis supplied). Claims 47-49 and 51 are dependent on claim 45.

The inclusion of “a vehicle” as a limitation in each claim is central to the appeal, because defendant-appellant Buyers Products Company (“Buyers”) sells only unassembled snowplow parts, not trucks. Buyers sells those parts, which can be assembled into various-sized snowplow assemblies and then attached to a customer’s truck, under the **SNOWDOGG** brand.

SNOWDOGG parts are “mix and match.” A specific combination of parts is customized by a SNOWDOGG dealer for a specific customer, to be installed on the customer’s existing truck. It is undisputed that Buyers could only directly infringe the claims by assembling and mounting its snowplow parts to an existing truck, as at a convention or trade show.³ Sales of the unassembled parts by Buyers could only be an act of indirect infringement.

Against this background, the trial court entered judgment of liability for Douglas only on a theory of direct infringement. 35 U.S.C. § 102(a). Douglas made no effort to prove the elements of liability for indirect infringement. 35

³ *Douglas Brief*, JA2860-2863.

U.S.C. §§ (b) or (c). At the trial on damages, however, Douglas' evidence was entirely focused on Buyers' sales of SNOWDOGG parts – an act of indirect infringement. There was a fundamental mismatch between the type of liability found by the Court and Douglas' damages theory.

When the trial court identified the issue to Douglas prior to its rebuttal case at trial, and offered it the chance to put on additional evidence and to request a jury charge to satisfy its right to damages, Douglas declined. Douglas waived its right to indirect infringement damages.

Further, even as a theory of indirect infringement damages, Douglas' damages evidence failed to meet the standards of *Garretson*,⁴ *VirnetX*⁵ and *Ericsson*.⁶

Buyers also asserts on appeal that the trial court exceeded its mandate by considering patent claims that were not returned to it by this Court from the previous appeal, and the trial court's grant of summary judgment of validity was erroneous.

⁴ *Garretson v. Clark*, 111 U.S. 120, 4 S. Ct. 291, 28 L. Ed. 371 (1884).

⁵ *VirnetX, Inc. v. Cisco Sys.*, 767 F.3d 1308 (Fed. Cir. 2014).

⁶ *Ericsson, Inc. v. D-Link Sys.*, 773 F.3d 1201 (Fed. Cir. 2014).

STATEMENT OF THE CASE

I. The Previous Trial

This is the second time this case has reached this Court.

In 2009, Douglas sued Buyers for infringement of five patents.⁷ *Complaint* at JA199. In 2010, the trial court granted Douglas summary judgment of infringement of the 530 and 978 patents, and granted Buyers summary judgment of non-infringement of the 700 and 480 patents. *Order* at JA5194. Separately, the trial court granted Douglas summary judgment of validity of the 978 and 480 patents. *Order*, JA5315-5317. The first jury trial resulted in a verdict of no invalidity of the 530 patent and no infringement of the 935 patent. *Verdict*, JA5416-5418. The jury awarded damages of \$1,018,248 as to the 530 and 978 patents. *Verdict*, JA5430. The trial court denied Douglas a permanent injunction, but awarded a royalty for ongoing infringement. *Amended Judgment*, JA6889-6890.

⁷ U.S. Patent No. Re. 35,700, “Removable Snowplow Assembly With Pivotal Lift Stand”; U.S. Patent No. 5,353,530, “Quick Mounting Snowplow Assembly”; U.S. Patent No. 6,944,978, “Snowplow and Mount Assembly”; U.S. Patent No. 4,999,935, “Hydraulic System and Apparatus for Use With Vehicle Accessory Units”; and U.S. Patent No. 5,420,480, “Automatic Headlamp Switching System.”

II. The Previous Appeal

In the prior appeal (*Douglas I*), the damage award for the 530 and 978 patents was not challenged. This Court, however, reversed the trial court's construction of "connected to" in the 700 patent and remanded only claim 45 to the trial court, with instruction to enter judgment of infringement. This Court instructed:

Buyers has not presented any other arguments against infringement of claim 45. Accordingly, this court finds the accused products meet every limitation of claim 45 as properly construed. Therefore, this court reverses the grant of summary judgment of noninfringement and directs the district court to enter summary judgment of infringement in favor of Douglas.

* * * For the forgoing reasons, this court reverses the grant of summary judgment of noninfringement as to claim 45 of the '700 Patent.

Douglas I at 1343, 1346. The parties did not raise, and the Court did not address, any of the claims dependent on claim 45 that had been asserted below, or indirect infringement of any of the claims of the 700 patent.

Douglas I also reversed the denial of injunction as to the 530 and 978 patents and found that the ongoing royalty for those patents had been miscomputed because the trial court had relied on the "25 percent rule." *Id.* at 1346. The matter was remanded for further proceedings on claim 45 and for re-computation of the ongoing royalty by the trial court.

III. Proceedings On Remand

A. Summary Judgment Of Infringement And Validity

1. Only Direct Infringement Was Considered And Found

On remand as to the 700 patent, the trial court found that this Court's mandate (1) required it to find direct infringement of claim 45 of the 700 patent, and (2) permitted it to address infringement of the claims dependent on claim 45. The trial court, however, refused to consider the question of indirect infringement of any of the claims. *Order* at JA47-49; *see also Order* at JA13-14. Douglas never contested the trial court's decision to limit itself to direct infringement.

Taking up the briefs regarding summary judgment of infringement that had been filed before the first trial, the trial court relied on *Douglas I* to enter summary judgment of direct infringement of claim 45. *Order*, JA52-53. The trial court also found that none of the limitations of the dependent claims were at issue as to infringement and entered summary judgment of direct infringement as to claims 47, 48, 49 and 51. *Id.* at 84-85.

The trial court's summary judgment finding of liability was embodied in a post-trial Judgment Entry which expressly held that "Defendant Buyers Products Company's snowplow assemblies...**directly** infringe claims 45, 47,48,49 and 51 of United States Patent No. Re. 35,700." *Judgment*, JA2-3 (emphasis supplied).

There has never been a finding from the trial court that Buyers indirectly infringes any claim of the 700 patent.

During the 2014 trial on damages, Buyers objected to the mismatch between the finding of direct infringement and the indirect infringement damages presentation by Douglas. The trial court afforded Douglas an opportunity to supplement its case in chief during its rebuttal. *Transcript* at JA9757-9758 (Court and counsel) (offering Douglas the opportunity for more evidence “if you wish to do so, and the opportunity to ask this jury the question that Buyers said has to be asked in order to establish a right to damages.”). Douglas elected not to supplement its case. *Id.* at 9760.

In its ruling on the post-verdict motions, the trial court found that “Douglas offered no...evidence to support” the intent requirement of indirect infringement. *Order* at JA13.

2. The Trial Court Used Two Conflicting Definitions Of “Support Frame” To Consider Indefiniteness And Anticipation/Obviousness

The trial court also addressed the cross-motions regarding summary judgment of validity that had been filed before the first trial (mooted by the initial grant of summary judgment of no infringement). Buyers argued two separate grounds of invalidity: (1) that the claims were indefinite because of the use of the

phrase “support frame,” and (2) that the claims were anticipated or obvious in light of U.S. Patent No. 4,187,624 to Blau (JA3070 – JA3076) and several subsidiary references.⁸

In its Order denying Buyers’ two invalidity arguments, the trial court used two contradictory definitions for the claim term “support frame.” The trial court used a broad reading of the term to find the claims definite under the pre-*Nautilus*⁹ standard. The trial court used a narrow reading of the term to find the claims not anticipated or obvious.

For purposes of definiteness, the trial court construed “support frame” as:

a broader category of ‘lift frame’ that is not limited to supporting lift load but can also support other components of the blade assembly.

Order at JA59. However, for purposes of considering anticipation and obviousness, the trial court construed the phrase to require that the frame:

remain in a fixed position relative to the vehicle, to “support” various assembly components.

⁸ Buyers also sought leave to assert additional prior art that had not been part of its motion for summary judgment of invalidity in 2010. The trial court denied Buyers leave to argue the new prior art, and Buyers consequently sought an *ex parte* reexamination of the claims at issue before the Patent Office limited to the newly-identified prior art. Reexamination was granted (*Notice*, JA10285-10296) but ultimately the claims were confirmed in light of the asserted art (*Notice*, JA11885-11896). Byers did not assert the Blau patent in the reexamination petition, and the reexamination is not relevant to the legal issues argued in this appeal.

⁹ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

Id. at JA64. The trial court's logic as to the second definition was that the patent showed the frame supporting headlamps, which could not move relative to the vehicle. *Id.* Buyers argued that other things that might be "supported" (such as the plow blade) did not require this restriction (and were also taught in the patent) (*Brief* at JA10362) but the trial court ignored the argument.

The two conflicting definitions demonstrate the indefiniteness of the term. Further, if the broader definition is adopted, the claims are invalid for anticipation and obviousness in light of the Blau patent.

B. The Jury Trial On Damages

Though the trial court entered only judgment of direct infringement, Douglas was permitted to pursue damages for each and every sale of the SNOWDOGG parts, without linking those parts sales to demonstrated acts of direct infringement, such as occasions when Buyers attached the parts to trucks at a trade show.

Bero failed to take into account other patented and unpatented features of the Douglas and Buyers' plow assemblies that drive demand. Bero's opinion utilized a market share approach without any effort to construct the "but for" world absent

infringement by Douglas, contrary to *BIC Leisure*¹⁰. And Bero included foreign sales in his calculations though no claim under 35 U.S.C. § 271(f) had been made.

The jury ultimately awarded Douglas \$9,750,000 in damages, \$■ million of which was for lost profit, the remainder for royalty.¹¹ *Verdict*, JA10283. In post-judgment rulings, the trial court added an award for post-verdict royalties of \$134,400 relating to the 530 and 978 patents. *Order*, at JA4. The trial court selected a \$200 per unit royalty and added pre-judgment and post-judgment interest awards that Buyers does not contest here, except insofar as the interest awards are applied to the \$9,750,000 verdict which should be reversed.¹² *Id.*

¹⁰ *BIC Leisure Products, Inc. v. Windsurfing Intern., Inc.*, 1 F. 3d 1214 (Fed. Cir. 1993).

¹¹ Although a special verdict was not given to the jury to differentiate the parts of its award, the award is far in excess of the “royalty only” award alternatively proposed by Douglas (\$■ million) (*Transcript* at JA9566, l. 25 – JA9567, l. 15 (Bero)) and therefore must include a “lost profit” component. Bero calculated the lost profit component of damage to be \$■ million; Buyers did not offer a counter-calculation. (*Transcript* at JA9565, l. 22 – JA9566, l. 11 (Bero). A ■ percent royalty applied to the remaining 50% of sales (one-half of \$■) results in \$■, which the jury undoubtedly rounded up to \$■. The trial court, while acknowledging that a special verdict was not rendered, found that “Buyers’ breakdown of the jury’s likely calculations of lost profits and royalties is far more persuasive” than Douglas’ hypotheticals offered to suggest that the jury might not have actually rendered a lost profit verdict. *Order*, Dkt. 805 at 24. The trial court found Douglas’ arguments in that regard “strongly support Buyers’ reading of the award’s composition.” *Id.* at 25. Any reasonable reading of the verdict must find that it included a component for lost profit damages.

¹² On January 21, 2015, the court Clerk added an award of \$147,357.57 in costs, most of which were not justified in light of the strict reading of the cost rules in

Buyers timely filed an appeal on January 13, 2015. JA11950-11953.

Douglas has cross-appealed. JA11954.

STATEMENT OF THE FACTS

I. The Claims At Issue And The Accused Products

The 700 patent claims are directed to a vehicle mounted snowplow blade assembly that converts the vehicle into a snowplow. As written, the claims expressly include *both* the parts of the assembly (a mounting frame, a support frame, and a plow blade on an A-frame) *and* the vehicle (*i.e.*, a commercial truck) as limitations. Independent claim 45 with the four key parts highlighted is set out in the Nature Of The Case section, *supra*.

Buyers does not sell trucks – it sells snowplow assembly parts under the SNOWDOGG brand. Thus any claim of direct infringement by Buyers is limited to occasions when Buyers has assembled and used the SNOWDOGG parts on trucks. Buyers admits that it has occasionally assembled its SNOWDOGG parts onto trucks, for example in connection with trade shows. *Exhibit PX339*, JA10110 (photo). Douglas admits that sales of the parts by Buyers would be an act of

Taniguchi v. Kan Pacific Saipan, Ltd., ___ U.S. ___, 132 S. Ct. 1997, 2006 (2012). That cost award has been appealed to the trial court and is not discussed herein as it has not been finalized and is not yet ready for appeal to this Court.

indirect infringement, while placement of the parts on a truck by Buyers at a trade show would be an act of direct infringement. *Brief* at JA2860-2863

(“Buyers...directly infringes this element through its use of the SNOWDOGG snowplows on test and display vehicles.”).

Buyers sells its SNOWDOGG parts in a “mix and match” fashion. Buyers’ independent distributors buy a variety of parts, and the purchaser can combine a preferred blade size and type with the frame best built for the customer’s truck.

Later, various parts of the assembly can be replaced when they wear out.

Transcript at JA9644, l. 25 – JA 9647, l.8 (Moorman). The basic parts of the assembly are the moldboard (the plow blade), the A-frame (holds the blade), the lift assembly (lifts the blade), and the push-bar (mounted on the truck). *Id.* at JA9630, ll. 2-21 (Moorman).

There is no standard pricing for a SNOWDOGG assembly (because of the mix-and-match nature), but an entire assembly normally costs several thousand dollars. *See Exhibit DX 1083*, JA9916-9922 (showing MD model dealer net prices from \$1899 to \$2059).

The key inventive feature of the claims at issue, according to Douglas’ chief engineer and inventor, Gary Watson, that differentiates its plow assemblies from what the trial court described as a “crowded field” of snowplow patents (*Order* at

JA33) is that the assembly can be removed from the truck “as a unit” so as to leave the mounting frame on the vehicle, but “behind the bumper” so that the mounting frame does not become a hazard when the truck is driven without the assembly.

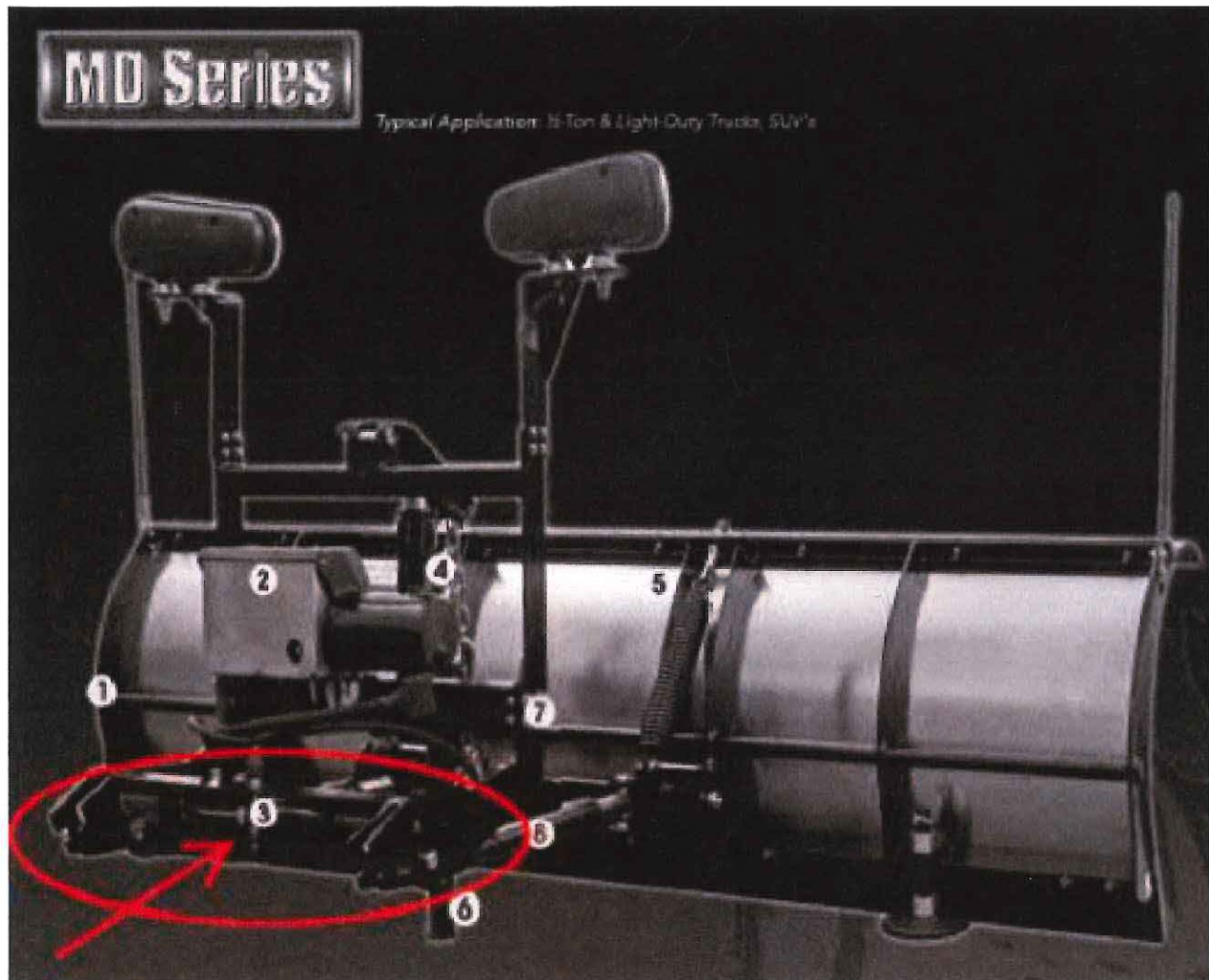
Transcript JA9476, l. 25 – JA9477, l. 5 (Watson).

Watson’s characterization of his invention tracks the language of the claims: Claim 45 concludes by specifying that the mechanism is “for affording removal of the A-frame and the support frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.” (emphasis supplied)

At trial, the parties and the trial court referred to this feature by the shorthand phrase “attachment/detachment” technology. *See, e.g., Transcript* JA9362, ll. 19-21 (court); JA9436, ll. 13-17 (Watson). Dependent claims 47, 48, 49 and 51 add additional limitations for an actuator to pivot the plow, a headlamp on the assembly, and a support stand or “kickstand” that maintains the snowplow kit upright when detached.

Douglas’ inventor Watson admitted that the inventive technology was not the entirety of the snowplow but rather was just the latch mechanism. In his testimony describing the technology of the 700 Patent, Watson pointed to use of the technology in the Buyers SNOWDOGG by referring to part number 3 in

Exhibit PX334, JA10098 (photo of a SNOWDOGG MD series plow attachment with the parts assembled):



JA10098 (red circle and arrow added for clarity). Watson unmistakably identified the attachment portion of the Buyers' snowplow assembly as the "infringing technology":

Q. Turning to page 4 of this document [*the Buyers' SNOWDOGG Brochure*], what is shown on page 4?

A. On page 4 the MD Series is shown. In addition it is shown on the upper photograph. **I think it's No. 3 is the section in which they are showing the infringing technology** that they were offering.

Transcript at JA9446, ll. 21-25; JA9447, ll. 18-23; JA9448, ll. 3-16; JA9448, ll.

17-21; JA 9449, l. 6 - JA9450, l. 4 (all – Watson) (repeating the testimony *in haec verba* with various drawings).

Buyers' chief engineer, Scott Moorman, testified that the linkage mechanism pointed to by Watson – “part No. 3” – was the “lower lift frame,” set out in detail in the following drawing from a Buyers' Owner's Manual:

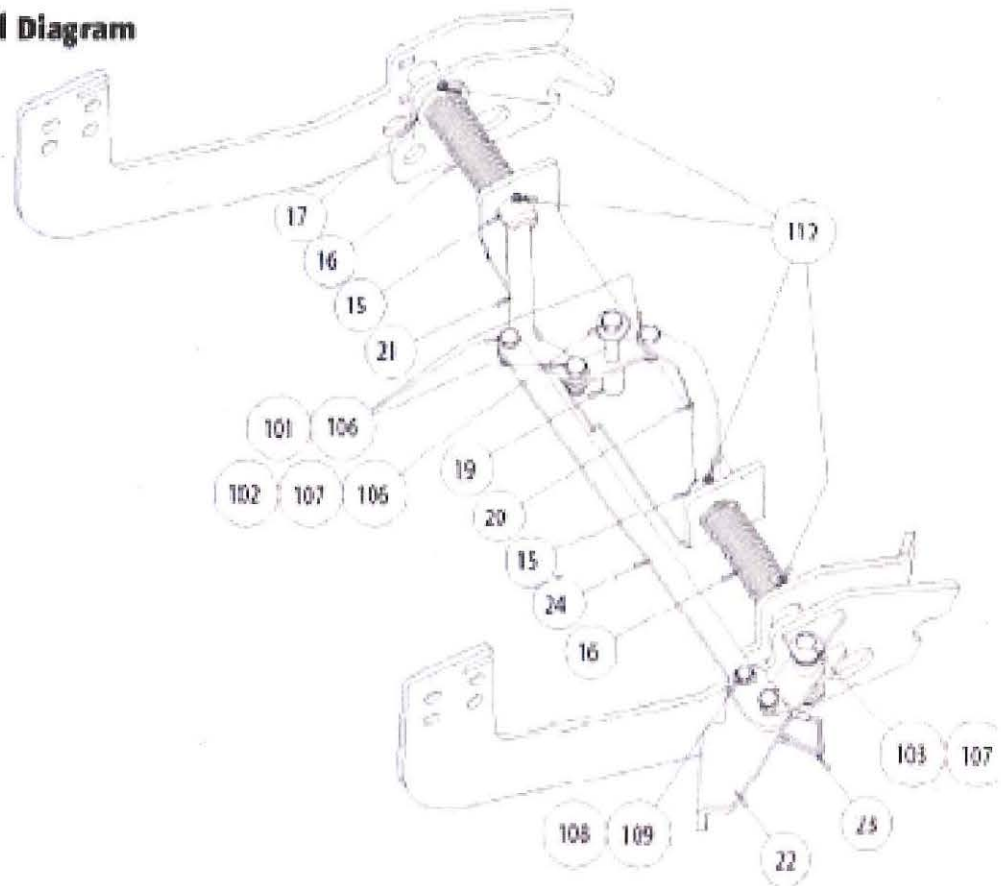
Linkage Detail Diagram

Exhibit DX1065 at JA9887; *Transcript* at JA9632, ll. 7-24 (Moorman). The “lower lift frame,” is sold by Buyers as a separate part for approximately \$230 - \$290. *Id.*

Despite the \$230 - \$290 dollar value of this mechanism, Douglas sought damages in this case of roughly \$[REDACTED] per unit, nearly three times the value of the part. *Transcript* at JA 9571, ll. 22-24 (Bero) The jury verdict of \$9.75 million represents an award of roughly \$[REDACTED] per unit, more than twice the value of the part.

II. Evidence Regarding The Meaning Of The “Support Frame” Limitation

All the claims at issue were added by Douglas during a reissue proceeding, and they contain the new phrase “support frame.” Douglas characterizes the reissue proceeding as a “broadening reissue.” *Brief* at JA758; *Reply Brief* at JA4145. The specification of the 700 patent does not use the phrase “support frame.” The prosecution history of the reissue similarly does not give an explicit meaning to “support frame.”

In the summary judgment briefing relating to indefiniteness, Douglas submitted two dictionary definitions of “frame.” *Brief* at JA760. The two definitions submitted by Douglas define a “frame” as a “basic structural unit onto or into which other constituents of a whole are fitted, to which they attach, or with which they are integrated,” or as a “supporting structure: an underlying or supporting structure that consists of solid parts such as beams or struts with spaces between them and has something built around or on top of it.” *Id.*

Buyers submitted the testimony of inventor Watson and Douglas’ technical expert Dr. Garriss relating to “support frame.” Watson, when asked “what is a support frame” answered “I don’t think I can answer that.” *Watson Deposition* at JA3330, l. 20 – JA 3331, l. 14. Douglas’ technical expert Garriss, when asked

about the difference between a “support frame” and the “lift frame” mentioned in the original claims, testified:

A. ...[I]n the context of the ‘700 patent, the support frame is more broad than the lift frame. The lift frame is defined as producing a very specific function, you know, basically the lift frame is the -- is the frame to which the lifting mechanism for the plow transmits its load, whereas the support frame is a much more generic frame. It includes -- it could include the lift frame, it could include a light supporting frame. It could -- it could include maybe a flag -- you know, a flag support -- it could support anything. It’s a very broad concept, a support frame, as opposed to a lift frame. A lift frame has a specific function. A support frame has a more general function

Q. So the lift frame’s specific function is to lift, right?

A. Correct.

Q. Okay. And support frame has a much more nebulous function?

A. I wouldn’t say nebulous, but I would say there’s a lot of things that you might imagine that it could support. You know, it could support lights, it could support flags, it could support a lot of things. It could support a little child seat, you know.

Garris Deposition at JA3337, l. 24 – JA3338, l. 25. No other evidence of the meaning of “support frame” was offered.

III. Invalidating Prior Art

The Blau patent¹³ issued on February 12, 1980, more than ten years prior to the earliest date for the 700 patent application. Blau discloses “A snow plow

¹³ U.S. Patent No. 4,187,624, entitled “Snow Plow.” JA3070 – JA3076.

especially suitable for use with small vehicles, such as cars...” in its Abstract.

Blau at JA3070. It specifically teaches an arrangement of parts “which permits the plow to be quickly coupled to the vehicle for snow plowing and quick removal of the plow when the vehicle is to be used for its conventional purposes.” *Id.* *Blau* is directed to the same type of attachment/detachment snow plow technology and purpose as is the 700 patent.

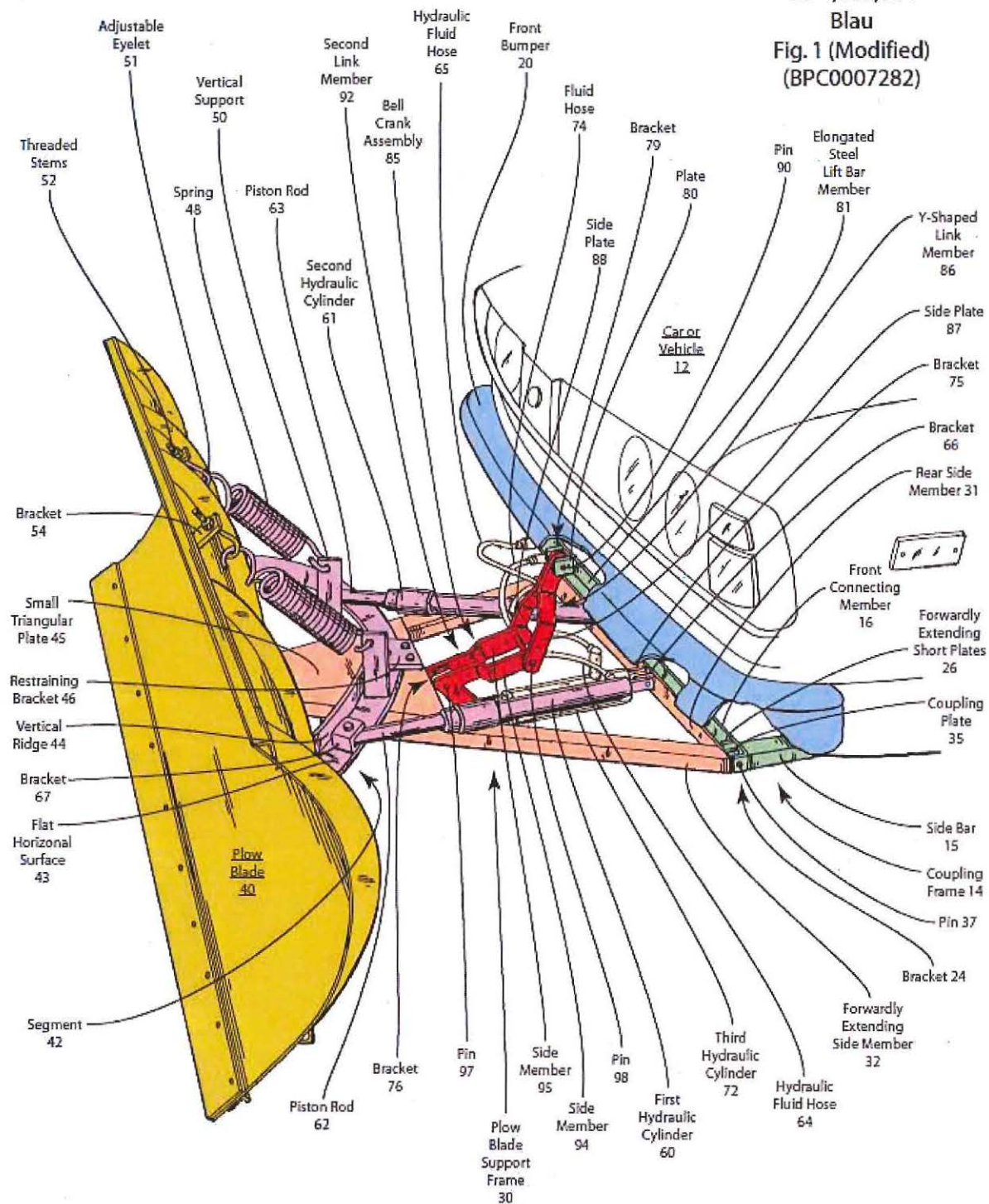
Figure 1 from *Blau*, enhanced with color and call-outs by Plaintiff’s expert, Dr. Garris, appears on the following page. *Garris Demonstrative Exhibit 77*, JA955. Color highlights the plow blade (gold), A-frame (pink), mounting frame (green) and support frame (red):

Demonstrative Exhibit 77

US 4,187,624

Blau

Fig. 1 (Modified)
(BPC0007282)



Blau is the primary reference asserted by Buyers for its anticipation argument. The only disputed issue was whether the “bell crank assembly” (red) meets the “support frame” limitation of claim 45. Dependent claim 47 is obvious in light of Blau combined with U.S. 4,236,329 to Hetrick (JA3118 – JA3131), which show an “actuator” extension added to the plow kit. Dependent claim 48 is obvious in light of Blau combined with U.S. 4,658,519 to Quenzi (JA3102 – JA3116), which shows a headlight added to the plow kit. Claims 49 and 51 are obvious in light of Blau combined with U.S. 4,205,825 to Stanford (JA3097 – JA3100), which shows a “support stand” or “kickstand” for use with a plow kit. *See Prahl Expert Report* at JA3190 – JA3193, JA3201 – JA3205, JA3284-JA3291; *Brief* at JA2966 – JA2973, JA2980 – JA2987.

Hetrick, Quenzi and Stanford are obvious combinations with Blau to one of ordinary skill in the art because they explicitly discuss features of attachable snow plow frames. *Id.* Since Blau is an attachable snow plow frame, it would be obvious to include known snow plow frame features on it, as the trial court itself admitted when it said it was “sympathetic to [Buyers’] contention on an abstract basis, given that the claims cover such seemingly rudimentary features as adding lights and a support stand....” *Opinion* at JA74. Nevertheless, the Court granted

summary judgment of validity because it determined that independent claim 45 was valid. *Opinion* at JA75 – JA76.

IV. The Evidence Regarding Damages

The appropriate award of damages for direct infringement of the 700 patent was the only issue presented to the jury at the trial on remand.

A. Douglas Offered No Evidence Linking Its Damages To Acts Of Direct Infringement

Douglas made no effort to accommodate its damages evidence at trial to the trial court's judgment of direct infringement. As the trial court itself remarked, Douglas' evidence on damages was "principally related to sales of Buyers' snowplow assemblies" *Order* at JA13, fn. 7. It was undisputed that Buyers sells parts, not trucks and thus never sells the complete device claimed in the 700 patent. Buyers has on occasion used the complete device claimed, by assembling its plow parts to a truck at a trade show. However, neither Douglas' fact witnesses, its damages expert, nor its lawyers, attempted to link any claimed damages to such an act of direct infringement. This failure alone requires reversal of the judgment. And since no such evidence of direct infringement damages was presented at the trial, this Court should enter judgment for Buyers, or alternatively enter judgment on the 700 patent for zero dollars.

B. Even As An Indirect Damages Theory, Douglas' Evidence Did Not Properly Analyze The "But-For" World

Even if indirect infringement had been found by the Court and made the subject of the damages hearing (which it was not), Douglas failed to establish entitlement to lost profits under such a theory. The parties agreed that acceptable, non-infringing substitutes for the patented technology existed in the market place, and so Douglas sought lost profits damages on the "market share" exception to the rule in *Panduit*.¹⁴ However, it did not do the analysis necessary to support such a theory.

The evidence at trial was that the lower-priced Buyers' products occupied a different niche from that of the high-priced Douglas products. Absence of the Buyers' products from the market would not translate into Douglas sales on a strict market share basis. Douglas admitted the point through its damages expert, Richard Bero, who offered a "correction" of the market share number from 60% to 50% to account for the difference in the niches occupied by the two parties:

In an effort to – one of the things that Buyers talks about is that its [*sic, it's*] selling based on price, and so I adjusted my analysis downward from 60 percent to 50 percent in recognizing that some of the customers may potentially not have purchased a Douglas plow because it would have been too expensive regardless.

¹⁴ *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F. 2d 1152 (6th Cir. 1978). Douglas admitted that it had to rely on a market share approach because it could not satisfy the second requirement of *Panduit*. *Response Brief* at JA10987.

Transcript at JA9543, l. 21 – JA 9544, l. 1 (Bero).

Despite admitting the need to adjust a strict market share percentage, neither Bero nor Douglas offered a quantitative explanation for Bero's ten percent downward adjustment. The adjustment was simply a "fudge factor" pulled from the air, as Bero admitted on cross-examination:

Q Let me ask you about that adjustment from 60 to 50. What quantitative work did you do to assure yourself that the adjustment from 60 to 50 had a basis in numbers?

A Well, one of the items that I pointed out in my report is I talked to eight of the top ten Buyers dealers and based on their estimates of the market share, and again, that's not the entire market, it's just their top customers, they ranged -- their estimates for Douglas's percentage was, of the market, was ■■■ I think to ■■■ percent.

Q Yes, but I don't believe that answers my question, sir. I'm asking how did you get from 60 to 50 as a way to quantify the possibility that customers would simply not buy a new plow and would go to alternatives? You didn't do anything, did you?

A I didn't specifically do a percentage adjustment of that particular component.

Transcript at JA9576, l. 9 – JA9577, l.1 (Bero). The trial court agreed that Bero had no quantitative support for his ten percent adjustment, but refused to grant relief from the verdict in any event. *Order* at JA12 ("...Bero was unable to offer a *quantitative* analysis for reaching that figure....") (emphasis in original).

1. Since Buyers And Douglas Occupy Different Sub-Markets, Simple Application Of A Market Share Number Is Inadequate To Prove The “But-For” World

As Judge Mayer summarized it in his dissenting opinion in *Douglas I*, the evidence in this case during the first trial was that Douglas and Buyers do not sell into identical markets:

At trial, Douglas was unable to point to a single snowplow sale that had been lost to Buyers. This is because Douglas and Buyers occupy different market segments, with Douglas competing at the high end of the snowplow market and Buyers selling to consumers in the low-cost segment of the market.

Douglas I, at 1336 (discussing market analysis for purposes of injunctive relief).

The evidence during the trial on remand reinforced this point.

During the 2014 trial, Douglas representatives acknowledged that there are four market segments in the snowplow industry, consisting of homeowners, light commercial/business, commercial, and municipal users. Transcript at JA9419, ll. 9-14 (Janik). James Janik, Douglas’ President and CEO, described the typical snowplow market breakdown:

And typically the breakdown for Douglas is pretty similar to what the industry is in terms of who these products are sold to. You know, municipal is ■ to ■% of most plow sales for everyone, commercial is about ■%, and business and homeowners is typically about ■% of the business.

Transcript at JA9401, ll. 13-18 (Janik). In contrast to Douglas and the rest of the industry, Buyers' market is 45% business/homeowner and only 53% commercial.

Transcript at JA9712, ll. 6-16 (Finger).

Douglas' own documents revealed that Buyers' sales took market share from competitors other than Douglas rather than Douglas itself. Douglas admitted that its market share remained at essentially 60% before, during, and after the damages period. *Transcript* at JA9416, ll. 10-14 (Janik); JA9419, ll. 5-8 (Janik); JA9441, ll. 6-11 (Watson). At the same time, Buyers' closest competitor geographically, Cleveland, Ohio-based Meyer Products, [REDACTED].

Compare PX 686A at JA10237 with PX 688A at JA10240; *Transcript* at JA9442, ll. 4-7 (Watson).

2. Buyers' Survey Evidence Undermined A Blind Application Of Market Share Percentage To Lost Profits

Though Douglas failed to meet its burden to create and analyze a "but for" reconstruction of the marketplace, Buyers offered detailed survey evidence from its expert, Andrew Finger, undermining the legitimacy of a strict substitution of market share for *Panduit* factor two. Finger conducted a detailed customer survey showing that, for the most part, customers who purchased Buyers' snowplow parts

would not have purchased Douglas snowplow parts, and he argued strenuously against application of a lost profit theory in the present case.

Finger, testified that, based on his market research, “the SNOWDOGG market is different than the overall market and it’s different than Douglas’s market.” *Transcript* at JA9712, ll. 17-24 (Finger). He concluded that “because attachment/detachment was not important and Douglas cannot identify the dollar amount or the number of units that it would have received in a but-for world that in fact Douglas should not be entitled to lost profits damages and should only be entitled to a reasonable royalty damage.” *Transcript* at JA9712, l. 25 – JA9713, l. 10 (Finger).

To support his conclusion, Finger interviewed thirty-four snowplow dealers regarding the reasons motivating a customer to purchase a snowplow attachment. Twenty-one respondents never mentioned the attachment/detachment system; six casually referenced attachment/detachment, and only seven identified the attachment/detachment system as an important consideration. Thirty-two out of thirty-four dealers identified **price** as the key consideration when purchasing a plow. Of those respondents who sold SNOWDOGG plows, all of them stated that price was important and half of them identified Buyers’ stainless steel blade as a

key feature, a feature that is not patented and was not commonly used by Douglas.

Transcript at JA9703, l. 22 – JA9704, l. 10 (Finger).

Finger conducted a second round of interviews with twelve distributors to understand the motivation of SNOWDOGG ultimate purchasers. Seven of those twelve distributors responded that the attachment/detachment system was not important to SNOWDOGG buyers, three of them responded that some SNOWDOGG purchasers find the attachment/detachment technology important, and only two stated that attachment/detachment was important. *Transcript* at JA9704, l. 11- JA9705, l. 13 (Finger). One hundred percent of the respondents confirmed that SNOWDOGG purchasers buy based on **price**. *Transcript* at JA9705, ll. 14-21 (Finger).

C. Douglas Failed To Apportion Profit, Or Royalty, To The “Smallest Saleable Unit” Or To The Invention

Douglas allocated the entire market value of its fully-assembled snow-plow attachment to the 700 patent, both in its lost profits and its reasonable royalty analysis, with the exception that it subtracted the amount previously awarded to it on the 530 and 978 patents from its total calculation. *Transcript* at JA9419, ll. 7 - 17 (Bero).

Douglas assumed the full sales price of the assembly as its royalty base both to compute its lost profit and its reasonable royalty, despite Watson's testimony that the technology of the invention was embodied in the lower lift frame, a part having a tenth of the value of the entire assembly. *Transcript* at JA9565, ll. 6 -21 (Bero).

Douglas also failed to give any value to patented and unpatented features of the plows that drive customer demand, other than subtracting the jury's previous award on the same plows for infringement of the 530 and 978 patents. Those features not considered include other Douglas patents that cover the Douglas plows that were not asserted against Buyers, Buyers' own patent covering aspects of its plows, and non-patented features like the SNOWDOGG's stainless steel blade that were shown to drive customer demand.

1. The Undisputed Evidence Showed Many Patented And Unpatented Features Other Than The 700 Patent That Were The Basis For Customer Demand

According to Douglas, the mounting system that is the subject of the 700 Patent is one of at least four key snowplow features, the others being the electrical system, the hydraulic unit, and the hinged blade. *Transcript* at JA9420, l. 16 – JA 9421, l. 15 (Janik). Of these key features, according to Douglas' CEO, the hydraulic unit – not the mounting system – is the “heart of the snowplow.”

Transcript at JA9421, l. 16 – JA9424, l. 3 (Janik). Other intangible factors driving the demand for Douglas’ products include reliability, supply of parts, sales and service, reputation and quality reputation.” *Transcript* at JA9494, l. 23 – JA9495, l. 3 (Watson). Douglas’ advertisements focus on “a lot of different aspects” in addition to the mounting system. *Transcript* at JA9441, ll. 12-20 (Watson). With respect to the mounting system, Douglas’ advertisements (including its MINUTEMOUNT trademark) focus on the speed of its mounting systems – not the unitary connection/disconnection feature covered by the 700 Patent. *Transcript* at JA9406, l. 6 – JA9407, l. 1 (Janik); JA9436, l. 21 – JA9437, l. 20. Similarly, the mounting system is just one of fifteen features advertised by Buyers. *Exhibit PX334* at JA10102.

Various aspects of both Buyers’ and Douglas’ snowplow components are covered by other patents. Indeed, Buyers was found not to infringe other claims of the 700 Patent itself – a finding upheld by this Court in *Douglas I*. For most of the infringement period, Buyers’ linkage – the identified “infringing technology” – was covered by a patent owned by Buyers on its improvements to the mount. *Exhibit DX1067* at JA9903 – JA9915 (US Patent No. 7,562,718 B1); *Transcript* at JA9635, l. 16 – JA9636, l. 1 (Moorman). Douglas’ Fisher snowplow assemblies are covered by three to eight patents beyond just the “attachment/detachment

patents.” *Exhibit PX449* at JA10111 – JA10113. Douglas’ Western snowplows (which practice the 700 patent) are covered by three to twelve different patents, beyond the 700 Patent. *Id.* Douglas’ Blizzard snowplows (which practice the 700 patent) are covered by as many as fourteen to fifteen patents in addition to the 700 Patent. *Id.*

Douglas’ damages theory took no account of the non-700 Patent features that drive customer demand – Douglas’ expert Bero assigned the entire profitability of the snowplow assembly to the 700 Patent, subtracting out only the previous award on the 530 and 978 patents.

2. Douglas’ Royalty Analysis Improperly Focused On The Differential Pricing Between Douglas And Buyers Parts

As to sales beyond Douglas’ market share, Bero advocated an 11.6% royalty rate applied to the entire combined value of the Buyers snowplow parts.

Transcript at JA9511, ll. 4-8. Bero claimed that he utilized a “market approach” to valuing the 700 patent. Bero’s “market approach” consisted of choosing the lowest of the “market profitability analysis” (Douglas’ 50% market share applied to its average incremental profit per snowplow), the “pricing premium” rate (the difference between Douglas’ and Buyers’ prices), and the “profit premium” rate (the difference between Douglas’ and Buyers’ profitability). *Bero Report*, at

JA4757 – JA4759, JA4762. The three quantitative analyses performed by Bero simply compare the pricing and profitability of the two parties to this litigation, both of which were presumed to practice the 700 patent, and thus shed no light on the incremental value of the 700 patent. *See Transcript* at JA9594, ll. 1-21 (Bero).

Bero ignored similar metrics from competitors not utilizing the 700 Patent, which would have actually shed light on the incremental value of the invention. *Transcript* at JA9595, l. 7 – JA9596, l. 4 (Bero) (Bero unable to deny that, had he compared Douglas to a non-infringing competitor, the resulting rate would have been only █%).

3. Buyers' Alternative Royalty Analysis

As an alternative to the Bero lost profit analysis, Buyer's expert Finger suggested a reasonable royalty rate of █% based on: (1) the jury's determination at the first trial of a █% royalty rate for the two other Douglas attachment/detachment patents, which had never been raised on appeal; (2) Douglas' expert's calculation of a █% cost benefit attributable to the implementation of the 700 Patent in the Blizzard snowplows, plows which Douglas added to its line by acquisition and then modified to incorporate 700 patent technology; (3) Douglas' prior willingness to license the 700 Patent; (4) Douglas would be receiving a royalty on sales that otherwise would not have been made;

(5) attachment/detachment was of limited importance to Buyers' customers; and
(6) the importance of price to SNOWDOGG purchasers. *Transcript* at JA9721, l. 3 – JA9722, l. 9 (Finger).

SUMMARY OF ARGUMENT

The trial court should not have entered judgment on claims 47, 48, 49 and 51, as this Court's mandate from the first appeal remanded exclusively independent claim 45.

The trial court adopted two conflicting constructions for the claim phrase "a support frame" - a broad reading for purposes of finding the term definite and a narrow one to exclude the prior art. This Court should either find the phrase indefinite and invalidate the claims at issue, or apply the broad definition, reversing the grant of summary judgment of validity.

The trial court entered judgment limited to direct infringement in Douglas' favor, but permitted Douglas to prove its damages at trial as if for indirect infringement. Since Douglas presented no evidence linking any damages to acts of direct infringement by Buyers, the judgment should be reversed and entered in favor of Buyers for lack of proof of damages.

If the trial court's judgment is (improperly) read as one for indirect infringement, then it should be reversed for lack of evidence of the necessary

scienter, either at summary judgment or trial, as well as the trial court's failure to charge the jury as to the elements of indirect infringement or submit the issue to them by special verdict.

Even if a theory of indirect infringement were appropriate, Douglas' damages theory was improper and should not have been submitted to the jury. Douglas' damages expert offered no evidence of loss of sales "but for" Buyers' infringing activity. Douglas' damages expert did not apportion the claimed damages as between the claimed invention and other patented and unpatented features. And he included foreign sales of the snowplow parts in his damages computation, even though a judgment of direct infringement for use of the parts by Buyers was the only finding of liability

The trial court improperly refused to charge the jury on apportionment, despite a request from Buyers for a charge taken from the Supreme Court's *Garretson* decision.

ARGUMENT

I. Standards Of Review

This Court reviews a decision as to the scope of its own mandate *de novo*. *Laitram Corp. v. NEC Corp.*, 115 F.3d 947, 950 (Fed. Cir. 1997).

Under the Seventh Circuit's standard, this Court reviews a grant of summary judgment *de novo*. *Dempsey v. Atchison, Topeka & Santa Fe Ry. Co.*, 16 F.3d 832, 836 (7th Cir. 1994).

This Court reviews motions for JMOL and for a new trial under regional circuit law. *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1202 (Fed. Cir. 2010). In the Seventh Circuit, a grant of JMOL is reviewed "without deference, while viewing all the evidence in the light most favorable to the nonmoving party." *Trading Techs. Int'l v. eSpeed, Inc.*, 595 F.3d 1340, 1357 (Fed. Cir. 2010). Denial of a motion for a new trial is reviewed for abuse of discretion. *Huff v. Sheahan*, 493 F.3d 893, 899 (7th Cir. 2007).

This Court reviews the admissibility of evidence of damages under regional circuit law. *See, e.g., Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1465 (Fed. Cir. 1998). The Seventh Circuit reviews *de novo* whether the district court applied the proper legal framework; but reviews decisions to admit or exclude expert testimony under this framework for an abuse of discretion. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014).

This Court reviews *de novo* the legal sufficiency of a jury instruction on an issue of patent law. *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1363 (Fed. Cir. 2004).

II. The Trial Court Over-Stepped This Court's Mandate When It Entered Summary Judgment Of Infringement Of Claims 47, 48, 49 and 51.

This Court's Opinion in *Douglas I* "reverse[d] the grant of summary judgment of noninfringement as to claim 45 of the '700 patent," thereby leaving all other aspects of this Court's decision on the cross motions for summary judgment regarding infringement in place. *Douglas I* at 1346. There was no mention in the Opinion, in the briefs of the parties, or during oral argument, of any of the claims dependent on claim 45 in the 700 patent.

"Unless remanded by this court, all issues within the scope of the appealed judgment are deemed incorporated within the mandate and thus are precluded from further adjudication." *Engel Indus., Inc. v. Lockformer Co.*, 166 F.3d 1379 (Fed. Cir. 1999); *Laitram*, 115 F.3d at 951 ("Upon return of its mandate, the district court cannot give relief beyond the scope of that mandate."); *see also Accenture Global Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341-2 (Fed. Cir. 2013).

Infringement of the claims dependent on claim 45 was "within the scope of the appealed judgment." The appealed judgment granted Buyers summary judgment on those claims as well as claim 45. Claims other than claim 45 were not "remanded by the court," as the Court's opinion refers repeatedly and exclusively to claim 45.

Had Douglas believed that the *Douglas I* Opinion's scope was improperly narrowed to claim 45, it could have requested rehearing to address that concern. Buyers requested rehearing regarding the Opinion on other legal issues, but Douglas never mentioned broadening the scope of the Opinion to include claims dependent on claim 45, even though it had the chance to do so in that context.

Regardless of Douglas' reason for omitting any reference to those claims, in fact they were never mentioned and this Court never addressed them. They should not have been the subject of further consideration by the trial court.

Should this Court reverse only the judgment of direct infringement as to the dependent claims, at a minimum Buyers would be entitled to a new trial at which damages only for claim 45 would be considered.

III. The Trial Court Erred In Granting Summary Judgment Of Validity Of The Asserted Claims

Buyers argued that the asserted claims were (1) indefinite because of their use of the phrase "support frame" and (2) anticipated by, or obvious in light of, the prior art, primarily the Blau reference.

In considering these two questions of validity, the trial court utilized two, substantially different definitions. When considering whether the claim term "support frame" was definite, the Court held:

Douglas's proposed construction – that a “support frame” is simply a broader category of “lift frame” that is not limited to supporting lift load but can also support other components of the blade assembly – appears both reasonably certain and accurate.

Order at JA59. However, five pages later, when considering whether the prior art taught the “support frame” limitation, the Court held:

Thus, the court concludes that the plain and ordinary meaning of “support frame,” to a person of ordinary skill in the art, would require it to remain in a fixed position relative to the vehicle, to “support” various assembly components.

Order at JA 64. These two definitions are contradictory. The necessary consequence is that the claims are invalid for indefiniteness or in view of the prior art.

A. The Claims Are Invalid As Indefinite

In *Nautilus*, 134 S. Ct. at 2124 (U.S. 2014), the Supreme Court held that a patent is invalid for indefiniteness “if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus* rejected the prior rule that a claim is definite so long as the claim is “amenable to construction,” and is not “insolubly ambiguous.” *Id.*

The only evidence offered by the parties as to the scope of the phrase “support frame” was the testimony of persons of ordinary skill in the art offered by

Buyers.¹⁵ The 700 patent's inventor, when asked "what is a support frame" in the context of the patent answered "I don't think I can answer that." *Watson Deposition* at JA3330, l. 20 – JA 3331, l. 14. Douglas' technical expert concluded, "I wouldn't say [*the definition of "support frame" is*] nebulous, but I would say there's a lot of things that you might imagine that it could support. You know, it could support lights, it could support flags, it could support a lot of things. It could support a little child seat, you know." *Garris Deposition* at JA3337, l. 24 – JA3338, l. 25.

The trial court's two, contradictory definitions make it clear that the claims at issue do not "inform, with reasonable certainty, those skilled in the art about the scope of the invention." The first definition defines "support frame" as more general than, and inclusive of, a "lift frame." The second definition limits a "support frame" to frames that do not move relative to the vehicle. However, some lift frames do move relative to a vehicle – the bell crank assembly of Blau, which is used to lift the snow plow blade, is one such frame. The Blau frame should be a "lift frame," and by implication a "support frame," yet the trial court excluded it

¹⁵ The two dictionary definitions of "support frame" offered by Douglas were unhelpful, as they define "frame" but not "support" or "support frame." The trial court found that, for this reason, "Douglas' focus on dictionary definitions seeks to answer the wrong question." *Order* at JA63.

from being a support frame because of its movement, noting however that it fell within the dictionary definition of “frame.” *Order* at JA63, fn. 3.

The trial court’s uncertainty as to the scope of the invention at a minimum required denial of summary judgment of definiteness. Given that Douglas presented no evidence to rebut the testimony of its own witnesses as to the indefinite nature of the claim, this Court should reverse and enter judgment of invalidity based on indefiniteness.

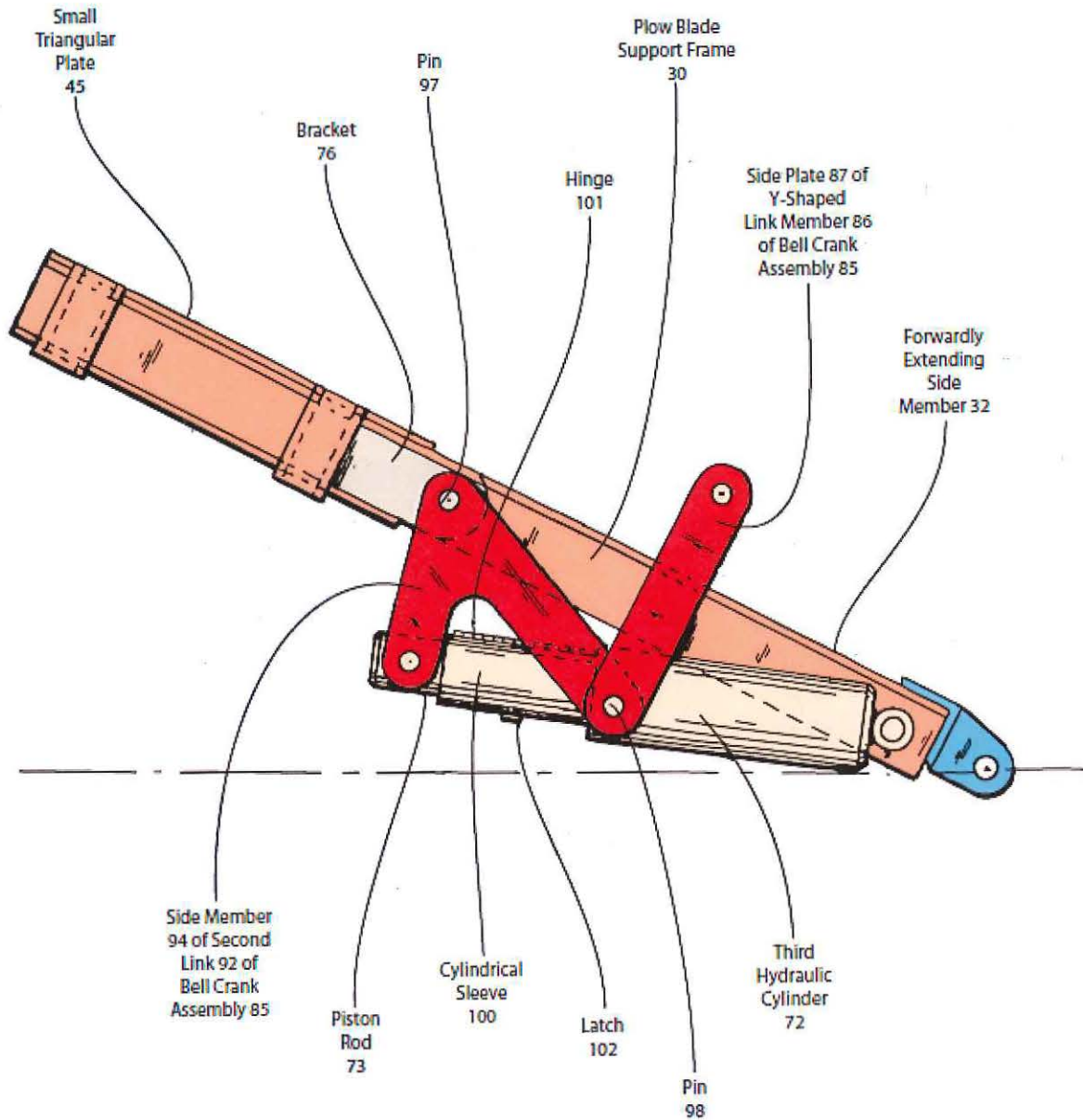
B. The Claims Are Invalid Because Of The Prior Art

Buyers asserted that claim 45 of the 700 patent is anticipated by the Blau reference. The parties were in agreement that Blau showed all of claim 45’s limitations, except the “support frame” requirement, as the trial court noted in its Order on the cross-motions regarding validity. *Order* at JA60.

Douglas admitted that claim 45, added during the broadening reissue proceeding, replaced the phrase “lift frame” in claim 1 with the phrase “support frame” and thus “support frame” has a broader scope than “lift frame.” *Brief* at JA4145 (“Claim 45 uses the broader term ‘support frame’ in lieu of the term ‘lift frame.’”) However, the trial court differentiated the Blau patent over claim 45 by giving the phrase a more narrow scope: the trial court held that the “bell crank assembly” (which supported the lifting mechanism for the snowplow blade in

Blau) was not a “support frame” because it did not “remain in a fixed position” relative to the vehicle to which it was attached.

Figure 1 from Blau is reproduced *supra* in full. On the following page is Figure 2 from Blau, which isolates the “bell crank assembly,” as modified and enhanced by Douglas’ expert for clarity:



Garris Demonstrative Exhibit 78, JA956.

Buyers' technical expert, Dr. Prahl, found that this bell crank assembly is a "support frame" and that claim 45 was anticipated by the Blau reference. *See Prahl Expert Report* at JA3190 – JA3193, JA3201 – JA3205, JA3284-JA3291; *Brief* at JA2966 – JA2973, JA2980 – JA2987. Blau teaches removal of the device as a unit, leaving behind the bumper – the key feature of the 700 patent – at col. 4, lines 8-17:

Frame 30 also includes a pair of coupling plates 35 which are welded to frame 30 adjacent the rear corners thereof, plates 35 being arranged and adapted for being inserted between the brackets 24 of frame 14. The coupling plates 35 also include a hole therethrough so that quick disconnect pins 37 may be inserted through the three aligned holes to pivotally couple blade support frame 30 to frame 14.

Blau Patent at JA3074 (4:8-15).

The Blau patent itself refers to the bell crank assembly as a "frame." *Id.* Further, the trial court found that the bell crank assembly could be called a "frame." *Order* at JA63. The only question remaining was whether it was a "support" frame. Under the first definition given "support frame" by the trial court – viz., "simply a broader category of 'lift frame' that is not limited to supporting lift load but can also support other components of the blade assembly" – the bell crank must be a "support frame" as it "supports" the hydraulic cylinder 72 as well as the entirety of the plow blade assembly and blade when the hydraulic cylinder is

activated. Thus, if the trial court's broad definition of "support frame" is accepted, Blau anticipates the 700 patent's claim 45.

When addressing anticipation, however, the trial court proposed a second definition for "support frame" – viz., requiring that it "remain in a fixed position relative to the vehicle, to 'support' various assembly components." The trial court pointed to a specific embodiment of the invention in the 700 patent, showing the support frame supporting headlamps, which would be ineffective if the frame and thus the headlamps moved relative to the vehicle. *Order* at JA63 – JA64.

However, headlamps attached to the support frame are claimed in claim 48, dependent on claim 45 (JA122), suggesting, contrary to the trial court's holding, that independent claim 45 is broader than the stationary support frame construct envisioned by the trial court. There is no dispute that the bell crank assembly of Blau "supports" the plow blade because in operation it lifts the blade off the ground. Thus, without the trial court's "fixed position" requirement, Blau anticipates claim 45.

The trial court's finding of validity for the claims dependent on claim 45 was based entirely on the analysis of claim 45. *Order* at JA75. The trial court concluded that the additional limitations of the dependent claims were obvious

additions to any snow plow. *Id.* at JA74 (noting that “the claims cover such seemingly rudimentary features as adding lights and a support stand”).

Accordingly, if this Court finds claim 45 anticipated, it may enter judgment of invalidity as to all claims (to the extent that the dependent claims survive the argument that they were not properly considered on remand, *supra*). At a minimum, the matter should be returned to the trial court to submit the issues of anticipation and obviousness to a jury in light of the broader definition of “support frame” adopted by the trial court.

IV. The Trial Court’s Judgment Should Not Be Misconstrued As Finding Indirect Infringement, Because The Evidence Did Not Support Such A Finding

The trial court’s Judgment is clear in referring only to liability for direct infringement (35 U.S.C. § 102(a)), as explained *supra* in Statement Of The Case Section III(A)(1). This Court should not be persuaded by Douglas’ likely argument in response, urging this Court to adopt an expanded reading of the trial court’s Judgment for the sake of preserving Douglas’ damage award.

No evidence of the *scienter* necessary for a finding of indirect infringement (35 U.S.C. §§ (b) or (c)) was ever offered by Douglas, even when Douglas was afforded an opportunity at trial in its rebuttal case to supplement its case-in-chief. Buyers had requested a jury charge on *scienter* and a special verdict to be

submitted to the jury, but the trial court refused. *Proposed Jury Instructions* at JA8441 – JA8444, JA8465 – JA8467; *see also Objections To Court's Instructions* at JA9101 – JA9102.

Even though the trial court would not consider or charge the jury regarding the necessary *scienter* for indirect infringement, Buyers offered substantial evidence of its own lack of *scienter* at the trial. Buyers' chief engineer, Scott Moorman, testified that he designed the Buyers' plow parts from the beginning with an awareness of the 700 patent and a desire to avoid the attachment mechanism taught by the patent. He testified that he believed he had succeeded in his design around. The trial court's initial grant of summary judgment to Buyers, and the dissent's opinion in *Douglas I* demonstrate the good faith of Mr. Moorman's belief.

If this Court should choose to read the trial court's judgment as including a finding of indirect infringement, the lack of evidence of *scienter* requires the reversal of the summary judgment grant, reversal of the jury verdict and an entry of judgment of no indirect infringement for Buyers, or remand for trial on the issue.

A. Both Inducement To Infringe And Contributory Infringement Require Proof Of The Requisite *Scienter*

An infringer who has a good-faith belief that he does not infringe lacks the necessary *scienter* to induce infringement under 35 U.S.C. § 102(b). *Commil USA, LLC v. Cisco Sys.*, 720 F.3d 1361, 1367-1368 (Fed. Cir. 2013); *see DSU Medical Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306-7 (Fed. Cir. 2006) (en banc), (finding a demonstrated belief of non-infringement sufficient to support a jury verdict that the defendant did not induce infringement); *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1351 *amended on reh'g in part*, 366 F. App'x 154 (Fed. Cir. 2009) (finding that a reasonable belief of non-infringement supported a jury verdict that the defendant lacked the intent required for induced infringement); *Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.*, 554 F.3d 1010, 1025 (Fed. Cir. 2009) (holding that defendant's "belief that it can freely practice inventions found in the public domain" supports "a jury's finding that the intent required for induced infringement was lacking"); *Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 649 (Fed. Cir. 2011) (finding opinion of counsel regarding non-infringement "admissible, at least with respect to [defendant]'s state of mind and its bearing on indirect infringement").

The Supreme Court's Opinion in *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. ____; 131 S. Ct. 2060 (2011), clarified that both inducement to infringe

and contributory infringement (35 U.S.C. § 102(c)) require the same type of *scienter*. 131 S.Ct. at 2067; see *SynQor, Inc. v. Artesyn Technologies, Inc.*, 709 F.3d 1365, 1379 (Fed. Cir. 2013) (“Liability for induced or contributory infringement under § 271(b) or (c) requires ‘knowledge that the induced acts constitute patent infringement.’”) (quoting *Global-Tech*, 131 S.Ct. at 2068). The contributory infringement statute, 35 U.S.C. § 271(c), makes the requirement explicit, as it requires that the infringer “know[] the [component] to be especially made or especially adapted for use in an infringement of such patent....”

B. The Summary Judgment Evidence Offered By Douglas Did Not Discuss Buyers’ *Scienter*, Only Its Knowledge Of The 700 Patent

In summary judgment briefing, Douglas offered evidence that Buyers was aware of the 700 patent at the time it began manufacturing the accused snow plow parts, and that it was aware that the parts would be combined and placed on a truck. *Brief* at JA2862. However, Douglas offered no evidence that Buyers intended to infringe the 700 patent or knew that its customers’ acts would infringe.

To the contrary, Douglas offered testimony from Buyers’ chief engineer, Scott Moorman, that the design of the Buyers’ parts was an attempt to design-around the 700 patent, and that Moorman believed he had succeeded:

...we compromised on our mount to keep it simple and safe and to try to avoid this.

Q Try to avoid what?

A (Indicating.)

Q This litigation?

A This litigation. Quite frankly, this is – if I didn't have to worry about patents, I could have designed the best mount in the world.

Q But you did have to worry about patents; isn't that right?

A I did. And I designed a mount that's fine. It's not the best mount out there.

Moorman Deposition at JA540, cited by Douglas in its *Brief* at JA2862.

Mr. Moorman's belief was reasonable: the trial court initially agreed with him, finding no infringement in the first trial (*Order* at JA5161), and the Dissent in *Douglas I* would have upheld that determination.

C. Douglas Offered No *Scienter* Evidence At Trial, But Buyers Affirmatively Showed Its Lack Of Intent To Infringe

At the trial on remand, Douglas offered nothing further to support a claim that Buyers' had sufficient *scienter* to justify a finding of indirect infringement, even though at the last minute the trial judge afforded Douglas an opportunity to supplement its case in chief during its rebuttal. *Transcript* at JA9757, l. 23 – JA9758, l. 9 (Court) (offering Douglas the opportunity for more evidence “if you wish to do so, and the opportunity to ask this jury the question that Buyers said has to be asked in order to establish a right to damages.”). The jury was not charged

on liability nor given a chance to render a verdict as to liability. Having had the issue identified to it by the Court and having declined either to present additional evidence or to seek a special verdict relating to its right to indirect infringement damages, Douglas waived its right to seek indirect infringement damages. By failing to submit the appropriate charge, Douglas also waived the right to a jury trial on the issue.

At the trial on remand, Buyers' chief engineer on the project, Scott Moorman, reaffirmed his deposition testimony that he had studied the 700 patent when designing the SNOWDOGG snow plows, and intentionally created the SNOWDOGG design to avoid infringement. *Transcript* at JA9632, l. 25 – JA9636, l. 1 (Moorman); *see also Transcript* at JA9619, ll. 3-14 (Moorman) (explaining that Buyers did not copy Douglas plows).

This Court has confirmed findings of no indirect infringement where defendant “reasonably believed” that there was no infringement, even where the evidence supported a finding of direct infringement. See, e.g., *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1329 (Fed. Cir. 2009) (“The original product instructions do not evidence a specific intent to encourage infringement, since they teach a stirring action which Basic could have reasonably believed was non-infringing.”); cf. *Kinetic Concepts*, 554 F.3d at 1024-1025 (affirming jury verdict

of no induced infringement where “[t]he jury heard [defendant’s] founders explain why they did not believe they were infringing”).

To the extent Douglas attempts to construe the trial court’s Judgment Entry to include liability for indirect infringement in an effort to save its damages award, that re-write of the trial court’s Judgment should be denied. Even when given an opportunity at the end of its case to supply additional evidence on the point, Douglas failed to make a *prima facie* case. If, on the other hand, this Court accepts an expanded reading of the Judgment Entry, then that judgment should be reversed for failure of proof or at a minimum remanded for trial on that issue.

V. The Trial Court Erred In Entering A Judgment Based On The Jury Verdict, Or Alternatively In Failing To Grant A New Trial

Though Buyers was found only to infringe the asserted claims directly, Douglas was improperly permitted to put on a case of damages based on sales of the individual parts – an act that was undisputed to be an act of indirect infringement.

Alternatively, even if a damages theory based on indirect infringement were appropriate, Douglas (1) failed to put on a *prima facie* case of entitlement to the lost profits it was awarded, (2) failed to limit its calculation to the value of the “lower attachment frame” that embodied the inventive technology, (3) failed to

apportion the requested award among the patented invention and other patented and unpatented features of the snowplows that drive consumer demand, and (4) failed to exclude damages for non-infringing sales in Canada.

On any theory, Douglas' damages analysis was inadequate and the jury's verdict was not supported.

A. When Only Direct Infringement Is Found No Damages May Be Awarded For Alleged Acts Of Indirect Infringement.

There can be no question that Buyers does not directly infringe claim 45 of the 700 Patent by selling its unassembled snowplow parts, as the evidence is undisputed that it does not sell a "a vehicle having a frame member and a bumper" as required by the claim. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 949-50 (Fed. Cir. 1987) (en banc).

While there was some evidence that Buyers directly infringes claim 45 by placing its snowplow kits on vehicles at trade shows (*See Exhibit PX339*, JA10110), there was no testimony or argument that linked this act of direct infringement to the claimed damages for sale of the unassembled snowplow parts.

Damages must relate to the type of infringement that is established at trial. In *Embrex, Inc. v. Service Eng'g Corp.*, 216 F.3d 1343, 1350 (Fed. Cir. 2000), this Court vacated a damages award based on lost profits for lost sales where the

patentee had established only direct infringement by the defendant through internal testing. *See also Mirror Worlds, LLC v. Apple, Inc.*, 784 F. Supp. 2d 703, 724-25 (E.D. Tex. 2011), *aff'd*, 692 F. 3d 1351 (Fed. Cir. 2012); *Interwoven, Inc. v. Vertical Computer Systems*, 2014 WL 490996 (N.D. Cal. Feb. 4, 2014) (granting summary judgment of no lost profits after granting summary judgment of no indirect infringement).

The trial court found in its post-trial Order that “[t]he evidence of damages offered at trial principally related to sales of Buyers’ snowplow assemblies” (*Order* at JA13, fn. 7) and not to Buyers’ assembly and use of the parts in an act of direct infringement. Accordingly, there was a fundamental mismatch of the type of infringement found for liability (direct infringement for use) and the type of damages asserted by Douglas (indirect infringement for sale).

The judgment based on the faulty damage theory must be reversed. Further, it would be inappropriate simply to vacate the judgment and remand for a new trial on damages. Prior to trial, Douglas asserted only damages theories related to indirect infringement of claim 45 under 271(b) and 271(c). *See Douglas’ Response to Interrogatory* at JA10432 – JA10435. Accordingly, Douglas has waived any claim of entitlement to damages by direct infringement, and it is appropriate for this Court to enter judgment for Buyers, or alternatively to enter judgment

awarding zero dollars. *See Apple*, 757 F.3d at 1328 (“[I]n a case completely lacking any evidence on which to base a damages award, the record may well support a zero royalty award.”)

B. Even On A Theory Of Indirect Infringement, Bero’s Unsound Economic Testimony Tainted The Jury’s Deliberations And Should Have Been Excluded From Trial

Richard Bero’s testimony regarding lost profits should have been excluded because (1) he did not do a “but for” analysis as required by the market share approach, simply applying Douglas’ general market share instead of reconstructing the “but for” market, (2) he made an arbitrary “fudge factor” adjustment to that existing market share without any quantitative analysis to support the adjustment, (3) he failed to apportion the value of the invention for other non-patented elements and as to the smallest saleable infringing unit, and (4) he included foreign sales.

1. No “But For” Analysis In Bero’s Market Share Approach

A market share approach requires “sound economic proof” of the hypothetical market. *See Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1350 (Fed.Cir.1999) (damages require “sound economic proof of the nature of the market.”); *Crystal Semiconductor v. TriTech Microelectronics International Inc.*, 246 F.3d 1336, 1359 (Fed. Cir. 2001) (applying Grain

Processing to market share analysis). Here, Bero relied on historic market share and gave no economic proof regarding the hypothetical market assuming no infringement.

2. Bero's Adjustment Of The Historical Market Share Was A "Fudge Factor," Not A Quantitative Analysis

To the extent that Bero claims to have taken any hypothetical market factors into account by "adjusting" the share downward by an arbitrary percentage, he failed to identify any evidence or quantitative analysis supporting his proposed market share adjustment. In *Kumho Tire Co. v. Carmichael*, 526 US 137 (1999), the Supreme Court, quoting its decision in *General Electric Co. v. Joiner*, 522 U.S. 136, 146, 118 S.Ct. 512, 139 L.Ed.2d 508 (1997), cautioned that "nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *Id.* at 157. Bero's opinion on market share in the hypothetical "but for" world is pure *ipse dixit*.

The trial court agreed that Bero's adjustment factor lacked a quantitative analysis (*Order* at JA12), but attempted to justify Bero's use of a 10% downward modification on evidence Bero gleaned from interviews with eight Buyers dealers. *Id.* However, the dealer interviews showed they estimated Douglas market share

to be 50%, rather than the actual 60%. *Transcript* at JA9543, ll. 1-7 (Bero) Those facts at best cast doubt on the initial market share assumed by Bero; they shed no light on how to adjust the actual market share to reflect the mismatch of the two different submarkets served by Douglas and Buyers.

3. Bero Did Not Apportion The Damages To The Invention And His Testimony Should Have Been Excluded Or The Jury Should Have Been Expressly Charged On Apportionment

The trial court appears to have recognized that it was on thin ice when it allowed Bero to claim lost profits and reasonable royalties on the derived value for the entire snowplow kit with no apportionment of the non-infringing portions of the device, and no apportionment of other patented and unpatented features that drive customer demand:

This is something of a close question. On the one hand, the claims certainly cover the entirety of the snowplow assembly, unlike the majority of cases that Buyers cites, suggesting that it would be inappropriate to ignore the value of those claimed elements. On the other hand, damages should not turn on claim draftsmanship such that the owner of an improvement patent may deliberately add dependent claims directed to unimproved conventional devices to expand the royalty base.

Order at JA18 – JA19 (citations, quotations and quotation marks omitted). Indeed, the trial court understated the situation, as the claims are technically drawn to more than “the entirety of the snowplow assembly,” including as they do the attached

vehicle. Carried to its logical end, Douglas' and the Court's analysis would have lost profits and reasonable royalty based on the value of the Buyers parts and the value of the attached vehicle – an absurd result.

The proper royalty base is “the smallest salable infringing unit with close relation to the claimed invention.” *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67-68 (Fed. Cir. 2012). It is the burden of the patentee to “show in what particulars his improvement has added to the usefulness of the machine or contrivance.” *Garretson*, 111 U.S. at 121.

In *VirnetX*, 767 F.3d at 1326-1327 (Fed. Cir. 2014)¹⁶ this Court “reaffirmed that ‘[a] patentee may assess damages based on the entire market value of the accused product *only where* the patented feature creates the basis for customer demand or substantially creates the value of the component parts.’” (citing *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1268 (Fed. Cir. 2013) (emphasis original in *VirnetX* and added in *Versata*). “In the absence of such a showing, principles of apportionment apply.” *Id.*

¹⁶ This Court's Opinion in *VirnetX* issued after the jury trial in this case and the post-trial briefing, but before the decision by the trial court on the post-judgment motions. Buyers brought the case to the trial court's attention by letter (*Notice of Supplemental Authority* at JA11897 – JA11898), but the trial court did not address the case in its opinion.

More recently, this Court has characterized the purpose of a reasonable royalty as compensating the plaintiff “for the value of what was taken from him – the patented technology.” *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 2015 U.S. App. LEXIS 3133 at *18 - *19 (Fed. Cir. Mar. 2, 2015) (citing *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 770 (Fed. Cir. 2014)).

i. Bero Did Not Consider The “Smallest Salable Infringing Unit”

Plaintiff’s chief engineer and the 700 patent’s inventor identified the Buyers’ latching mechanism as the “infringing technology,” using those very words to describe the latching mechanism repeatedly with different exhibits. *Transcript* at JA9446, ll. 21-25; JA9447, ll. 18-23; JA9448, ll. 3-16; JA9448, ll. 17-21; JA 9449, l. 6 - JA9450, l. 4 (all – Watson).

Buyers’ chief engineer testified that the corresponding latching mechanism on a Buyers’ kit had a value of approximately \$230 - \$290. *Transcript* at JA9632, ll. 7-24 (Moorman). Bero should have used that value, or something akin to it, as the basis for apportioning both lost profit and reasonable royalty damages. Instead, his reasonable royalty analysis failed to apportion the value of the 700 Patent from other elements in both the choice of a royalty base and the choice of a royalty rate.

His lost profit analysis similarly and inappropriately claimed lost profits on the entire snowplow assembly. *Transcript* at JA9604, l. 21 – JA 9606, l. 6 (Bero).

ii. Bero Did Not Factor In Other Patented And Unpatented Features That Drive Customer Demand

Many other patented and unpatented features of the product were undisputedly shown to drive customer demand. For example, the trial court acknowledged that “James Janik, President of Douglas Dynamics, testified that the hydraulic system is the ‘heart’ of the Douglas snowplow.” *Order* at JA16, fn. 9. Yet, the hydraulic system was not at issue in the present case and was not apportioned out of the damages calculation by Bero. *Transcript* at JA9598, ll. 1 - 15 (Bero).

Moreover, Bero’s starting royalty was based on Douglas’ and Buyers’ comparative profitability – even though both were assumed to practice the 700 patent. Bero also took no account of other unasserted Douglas patents that relate to the snowplow kit, nor of the many unpatented features that drive sales both of the Douglas kit (such as Douglas’ well-known service) and the Buyers’ kit (such as Buyers’ well-liked stainless steel plow blades). *See supra* Statement Of The Facts, Section IV(C)(1).

Apportionment of these features is a requirement of a sound damages analysis, not a matter to be left to cross-examination or to argument by counsel:

When the accused infringing products have both patented and unpatented features, measuring this value requires a determination of the value added by such features. Indeed, apportionment is required even for non-royalty forms of damages: a jury must ultimately “apportion the defendant’s profits and the patentee’s damages between the patented feature and the unpatented features” using “reliable and tangible” evidence.

Ericsson, 773 F.3d at 1226 (Fed. Cir. 2014). In *LaserDynamics*, this Court excluded expert damages testimony because the expert’s apportionment analysis “appears to have been plucked out of thin air based on vague qualitative notions of the relative importance of the [patented] technology.” 694 F.3d at 69. The court pointed out that “[t]his complete lack of economic analysis to quantitatively support the [expert’s] apportionment echoes the kind of arbitrariness of the ‘25% Rule’ that [the Federal Circuit] recently and emphatically rejected from damages experts, and would alone justify excluding [the expert’s] opinions.” *Id.*

iii. The Trial Court Erred In Failing To Give A *Garretson* Charge, And The *Georgia-Pacific* Charge It Gave Did Not Solve The Problem.

Buyers asked for a jury charge¹⁷ straight from the words of the Supreme Court's Opinion in *Garretson*: "Douglas must 'give evidence tending to separate or apportion [Douglas'] ... damages between the patented feature and the unpatented features' that drive demand for the product." *Objections To Jury Instructions* at JA9108, JA9112; *See Garretson*, 111 U.S. at 121. The trial court refused. *Transcript*, JA 9188, JA9198.

Post-trial, the trial court determined that any impropriety in its failure to give the requested charge was remedied by the court's standard *Georgia-Pacific*¹⁸ charge. *Order* at JA20. However, in *Ericsson*, this Court cautioned against giving a jury testimony that relied on the entire market value but attempted to apportion simply by lowering the royalty rate. This Court held that because "reliance on the entire market value might mislead the jury, who may be less equipped to understand the extent to which the royalty rate would need to do the work in such instances." *Ericsson*, at 1227.

¹⁷ Pursuant to Federal Circuit Rule 30(a)(2)(A)(ii), the entirety of the jury charge is included in the Joint Appendix. Most of the substantive charges, at JA9341 – JA9373, were given in advance of the evidence. Charges relating to the process of deliberation, at JA9797 – JA9799, were given after the evidence.

¹⁸ *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1119-20 (S.D.N.Y. 1970).

The trial court also attempted to justify its failure to give the requested charge by referring to a non-precedential opinion of this Court, *Univ. of Pittsburgh of the Commonwealth Sys. of Higher Educ. v. Varian Med. Sys.*, 561 Fed. Appx. 934 (Fed. Cir. 2014). *Order*, Dkt. 805 at 15-17. The *Varian* decision specifically limits itself to the factors of that case. *Id.* at 949 (“On this record, the *Georgia-Pacific* factors were sufficient....”) The trial court found *Varian* persuasive because all the elements of the claim in that case functioned together to achieve the added value of the invention. No such facts were ever asserted or proved by Douglas in this case – the plow board, for example, was not shown to improve the ease by which the support frame was removed from the truck.

Indeed, the trial court’s analysis would require that the value of the truck be added to the combined value of the plow parts as the royalty base, because the truck is part of the claim and in a sense “functions together” with those parts to plow snow. That result is, of course, absurd, and even Douglas did not seek to base its royalty on the combination of vehicle and plow attachment. Once it became clear that all limitations of the claim should not be added together to value the invention, then the question became what portion of the elements represented the “value of the invention” – and Douglas’ chief engineer and inventor answered

that question when he repeatedly pointed to Buyers' "lower lift frame" as the "infringing technology."

4. Bero Wrongly Included Foreign Sales

It was also error to allow Bero to include sales of Buyers' parts to Canadian dealers in testimony. "It is axiomatic that U.S. patent law does not operate extraterritorially to prohibit infringement abroad." *Power Integrations v. Fairchild Semiconductor*, 711 F. 3d 1348, 1371 (Fed. Cir. 2013). Thus, sales of parts in Canada do not constitute "direct infringement" of the 700 Patent. While 35 U.S.C. 271(f) is an exception to this general rule (*Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 127 S.Ct. 1746, 1751 (2007)), Douglas is not entitled to damages for foreign sales in this case because: (1) Douglas never asserted infringement under 271(f); (2) Douglas never proved infringement under 271(f); and (3) Buyers' direct infringement in the United States cannot be expanded to cover sales of snowplows directly infringed outside the United States.

CONCLUSION AND RELIEF SOUGHT

For the foregoing reasons, Buyers asks this Court to reverse (a) the judgment below of summary judgment of validity of the asserted claims of the 700 patent, (b) the award of \$9,750,000 for infringement of the 700 patent, and (c) the related

award of prejudgment interest on that damages award of \$47,041. Having reversed that portion of the judgment, Buyers asks this Court to enter (1) judgment for Buyers that the asserted claims are invalid, or (2) judgment for Buyers regarding the allegations of infringement of the 700 patent for lack of proof of damages (and lack of proof of *scienter*, if construed to be a finding of indirect infringement), or (3) judgment regarding the allegations of infringement of the 700 patent for zero dollars.

The award of prejudgment interest on the *Douglas I* verdict (\$3,626), and the award of post-judgment royalties on the *Douglas I* verdict (\$134,400) were not appealed by Buyers.

Alternatively, should the Court conclude that any error requires reversal of the summary judgment of validity, or the judgment for damages on the 700 patent and the related award of pre-judgment interest, but does not justify entry of judgment thereon for Buyers, Buyers requests the remand of the matter for further proceedings in keeping with the Court's decision, including if necessary a new trial.

Dated: March 16, 2015

Respectfully submitted,

/s/ Thomas H. Shunk
Thomas H. Shunk
Christina J. Moser
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ADDENDUM

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

AMENDED JUDGMENT IN A CIVIL CASE

v.

Case No. 09-cv-261-wmc

BUYERS PRODUCTS COMPANY,

Defendant.

This action came before the court for consideration with District Judge William M. Conley presiding. The issues have been considered and a decision has been rendered.

IT IS ORDERED AND ADJUDGED that final judgment is entered in favor of plaintiff Douglas Dynamics, LLC against defendant Buyers Products Company in the amount of \$9,935.983.

/s/

January 5, 2015

Peter Oppeneer, Clerk of Court

Date

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,
Plaintiff,

v.

BUYERS PRODUCTS COMPANY,
Defendant.

JUDGMENT ON REMANDED
ISSUES IN A CIVIL CASE

09-cv-261-wmc

This action came for reconsideration before the court, with U. S. District Judge William M. Conley presiding, pursuant to remand by the Federal Circuit. *See* 717 F.3d 1336 (2013). Those issues remanded have been considered by the court and a decision has been rendered by a jury on damages. Accordingly,

IT IS ORDERED AND ADJUDGED that judgment is entered as follows:

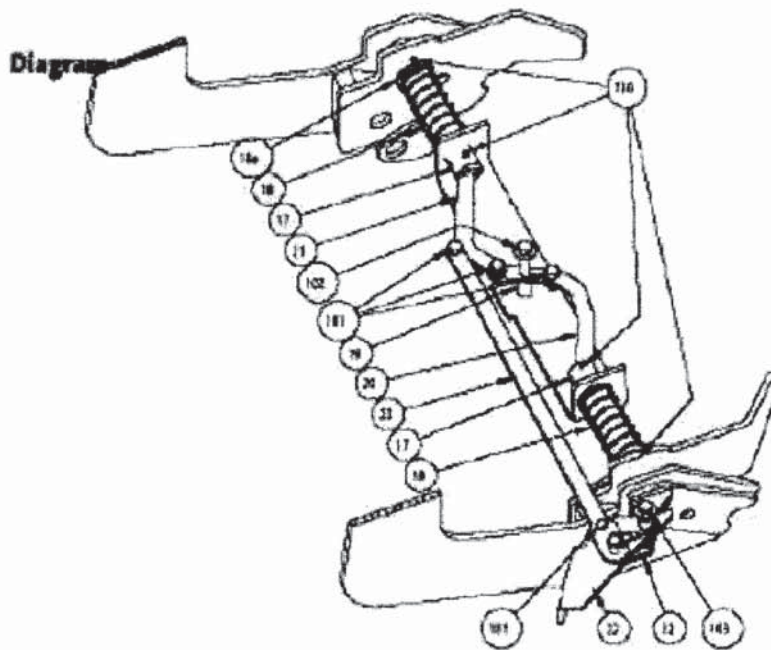
- (1) Defendant Buyers Products Company's snowplow assemblies (MD series, HD/EX series, VX series, CM series, XP series and TE series) directly infringe claims 45, 47, 48, 49 and 51 of United States Patent No. Re. 35,700; and
- (2) United States Patent No. Re. 35,700 is not invalid.

IT IS FURTHER ORDERED AND ADJUDGED that final judgment is entered in favor of plaintiff Douglas Dynamics, LLC against defendant Buyers Products Company in the amount of \$9,750,000 in damages.

IT IS FURTHER ORDERED AND ADJUDGED that as for a permanent injunction of United States Patent No. 6,994,978:

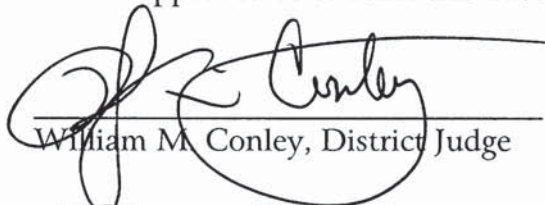
- (1) Buyers, its officers, agents, servants and employees, and all other persons who are in active concert or participation with them, who receive actual notice of this Order by personal service or otherwise, are permanently enjoined and restrained from infringing the '978 Patent by making, using, selling, or offering to sell, within the United States, its territories and possessions, or by importing into the United States, its territories and possessions, snow plow assembly linkage mechanisms for mounting a snow plow on a vehicle of the design commercially sold by Buyers on

and before October 1, 2010 (the “Infringing Linkage Mechanism”), and any other existing or future linkage mechanism for mounting a snow plow on a vehicle that is not more than colorably different from the Infringing Linkage Mechanism, during the unexpired term of the ’978 Patent. The Infringing Linkage Mechanism design is depicted below:



(2) This injunction does not enjoin or restrain making, using, selling, offering for sale, or importing snow plow assemblies having the designations MD, HD/EX, VX, CM, XP and TE Series or other designations, if and only if such snow plow assemblies do not make use of the Infringing Linkage Mechanism or any other existing or future linkage mechanism that is not more than colorably different from the Infringing Linkage Mechanism.

Approved as to form this 21st day of April, 2014.


 William M. Conley, District Judge


 Peter Oppeneer, Clerk of Court

4/21/14
 Date

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

v.

BUYERS PRODUCTS COMPANY,

Defendant.

OPINION & ORDER

09-cv-261-wmc

On appeal from this court's original summary judgment decision, the Federal Circuit determined as a matter of law that defendant Buyers Products Company, via its SnowDogg snowplow assemblies, infringed independent claim 45 of plaintiff Douglas Dynamics, LLC's U.S. Patent No. Re. 35,700 "Removable Snowplow Assembly with Pivotal Lift Stand." Accordingly, the court remanded this case for a determination of: (1) infringement of dependent claims; (2) invalidity; and (3) if necessary, damages. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336 (Fed. Cir. 2013). After reviewing the parties' previous briefing on the question of invalidity, this court held that no reasonable jury could find the '700 patent invalid on the record provided. (Mar. 13, 2014 Opinion & Order (dkt. #611).) A jury subsequently awarded Douglas \$9,750,000 in damages. (Dkt. #730.) This opinion and order addresses various post-trial motions¹ and directs entry of an amended final judgment in favor of Douglas Dynamics in the amount of \$9,935,983.²

¹ This opinion assumes the reader's knowledge of the background, factual determinations and rulings of law made by this court and the Federal Circuit, which will not be repeated here.

² As discussed further below, this award is comprised of the \$9,750,000 jury verdict; an award of post-judgment interest on the first verdict of \$916; an award of post-verdict royalties totaling \$134,400; an award of prejudgment interest on the first verdict of \$3,626; and an award of prejudgment interest on the second verdict of \$47,041.

OPINION

I. Buyers' Motion for Reconsideration of the Court's Summary Judgment Order**A. Construction of "Support Frame"**

Buyers first asks the court to reconsider its ruling on invalidity by revisiting its construction of the term "support frame." Specifically, Buyers contends alternatively that: (1) the court improperly gave the term two, materially different constructions, necessitating a finding that the '700 patent is indefinite; (2) applying just the court's first construction and the Supreme Court's recent ruling in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014), the '700 patent is invalid as indefinite;³ and (3) the court's second construction improperly imports limitations from the specification into the claims.

With respect to the first argument, Buyers contends that the court initially adopted a broad construction of the "support frame" element, defining it as a broader category of "lift frame" capable of supporting other components of a blade assembly, but then narrowed its construction to require that the support frame remain fixed relative to the vehicle in analyzing Buyers' anticipation argument. The court does not agree. On summary judgment, this court noted that, contrary to Buyers' argument, the term "support frame" was not insolubly ambiguous (the test at the time for determining indefiniteness). Rather, the court found that the construction Douglas proposed appeared to be "reasonably certain and accurate," given the context of the remainder of the patent. The court did not, however, *adopt* that construction.

³ Buyers has moved to file a supplemental brief in support of its motion to alter or amend (dkt. #770), based on the Supreme Court's decision in *Nautilus*. That motion will be granted, and Buyers' supplemental brief (dkt. #770-1) has been considered for purposes of this opinion.

Upon further analysis of the intrinsic evidence, including the context of the specification, for purposes of an indefiniteness determination, the court ultimately concluded that a reasonable person of ordinary skill in the art would construe a “support frame” to support various components of the snowplow in a fixed position relative to the vehicle.⁴ Thus, the court disagrees with Buyers’ contention that it construed “support frame” in multiple, much less inconsistent, ways.

In its second, closely related argument, Buyers contends that because both the “broader” and “narrower” constructions are reasonable, the “support frame” element must be found indefinite under the interpretation of 35 U.S.C. § 112, ¶ 2 as articulated by the Supreme Court in *Nautilus*. Previously, in analyzing § 112’s definiteness requirement, the Federal Circuit had held that claims are indefinite only if they are “insolubly ambiguous.” *Nautilus*, 134 S. Ct. at 2130. In rejecting that formulation of the test, the Supreme Court explained in *Nautilus* that “[t]o tolerate imprecision just short of that rendering a claim ‘insolubly ambiguous’ would diminish the definiteness requirement’s public-notice function and foster the innovation-discouraging ‘zone of uncertainty,’ . . . against which this Court has warned.” *Id.* (internal citation omitted). Instead, the Court held § 112, ¶ 2 requires “that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.* at 2129.

⁴ Buyers contends that neither party ever advanced this construction but admits that Douglas at least articulated the essence of this argument in opposing summary judgment by asserting that the bell crank assembly of the Blau prior art was not a support frame “in accordance with the claims of the 700 patent” because it could not support components that needed to remain stationary during plow operation.

Whether or not the new standard articulated in *Nautilus* proves to be a stricter one in practice,⁵ the “support frame” element of the ‘700 patent meets that standard. In particular, the specification contemplates a lift frame, and thus the comparable support frame, that remains fixed to the vehicle during plowing and may support other components of the assembly in addition to the lift load. (*See, e.g.*, U.S. Patent No. Re. 35,700 col.3 ls.24-29 (“While the lift frame remains pivotable relative to the A-frame, the lift frame, during plowing, is fixed to the vehicle so that lights and other accessories which may be mounted on the lift frame remain fixed relative to the vehicle during plowing and during stacking of snow.”) (filed Dec. 1, 1995).) This is enough to inform a person skilled in the art of the scope of the snowplow assembly with reasonable certainty as described in the ‘700 patent and the context of the specification.

Finally, Buyers argues that the court’s construction of “support frame” improperly imported limitations from the specification into the claims by requiring that a support frame remain fixed to the vehicle. The court again disagrees. While “there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification,” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998), this court was not “limiting the claimed invention to preferred embodiments or specific examples in the specification.” *Tex. Instruments, Inc. v. U.S. Int’l Trade Comm’n*, 805 F.2d 1558, 1563 (Fed. Cir. 1986)). Instead, the court looked to the summary of the invention itself in order to ascertain the characteristics of a “support frame”

⁵ The Supreme Court noted in *Nautilus* that “[t]he Federal Circuit’s fuller explications of the term ‘insolubly ambiguous,’ . . . may come closer to tracking the statutory prescription.” *Nautilus*, 134 S. Ct. at 2130. Thus, it is unclear at present whether the substance of the law will change in light of the Court’s apparent reformulation of the inquiry.

in the context of the ‘700 patent. “It is entirely proper to use the specification to interpret what the patentee *meant* by a word or phrase in the claim.” *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988) (emphasis added).

To the extent the court also cited to the description of the preferred embodiment as support for its construction, which if done in isolation would be problematic, *see SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc) (plurality opinion), the description of the preferred embodiment merely reaffirms the general description of the *invention as a whole* found earlier in the patent. Similarly, the citation to dependent claim 48, which actually includes a headlamp connected to the support frame, did not *import* that limitation into claim 45. Nor, as Douglas notes, does *any* dependent claim specify that the support frame must remain fixed to the vehicle. Rather than improperly importing limitations into the claims, therefore, the court’s construction relied upon the context of the ‘700 patent as a whole in discerning what a person of ordinary skill in the art would understand a “support frame” to be. Accordingly, the court reaffirms that construction and will deny the motion to alter or amend on this point.

B. Consideration of the Cicula and Miller References

Buyers again asks the court to reconsider its rulings on summary judgment in light of prior art not presented in its original summary judgment briefing. The court has addressed this argument at least twice before and has rejected it each time. (*See* Nov. 4, 2013 Opinion & Order (dkt. #589) 2-4 (holding that summary judgment would be decided on existing briefing); Feb. 13, 2014 Opinion & Order (dkt. #609) 4-5 (denying reconsideration).) The function of a motion to alter or amend is not to serve as a vehicle to re-litigate previously

argued matters. *Caisse Nationale de Credit Agricole v. CBI Indus., Inc.*, 90 F.3d 1264, 1270 (7th Cir. 1996). Buyers' motion, at least as regards this point, does just that. Accordingly, the court declines to revisit its previous rulings on this question and will deny Buyers' motion for reconsideration.

II. Buyers' Motion for Judgment as a Matter of Law or for a New Trial

A. Judgment as a Matter of Law

When reviewing a motion for judgment as a matter of law in patent cases, the trial court is to apply the law of its regional circuit. *Summit Tech., Inc. v. Nidek Co., Ltd.*, 363 F.3d 1219, 1223 (Fed. Cir. 2004). In resolving a Rule 50(b) motion for judgment as a matter of law, this court must determine whether the jury had a legally sufficient evidentiary basis for the verdict it reached. *See May v. Chrysler Grp., LLC*, 716 F.3d 963, 971 (7th Cir. 2012). In doing so, this court must also "construe the facts strictly in favor of the party that prevailed at trial," *id.* (quoting *Schandelmeier-Bartels v. Chi. Park Dist.*, 634 F.3d 372, 376 (7th Cir. 2011), including by "drawing all reasonable inferences in that party's favor and disregarding all evidence favorable to the moving party that the jury is not required to believe." *Id.* Under this standard, Buyers' challenges to the judgment all fall short.

i. Lost Profits

As a preliminary matter, Buyers argues that the utter lack of evidence supporting Douglas's lost profits theory meant that those damages were unavailable as a matter of law. In support, Buyers cites to the Federal Circuit's decision in *Wechsler v. Macke International Trade, Inc.*, 486 F.3d 1286 (Fed. Cir. 2007), which reversed the denial of a motion for judgment as a matter of law based on the legal unavailability of lost profits. Certainly,

Buyers is correct to the extent that the availability of lost profits is indeed a question of law. *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1544 (Fed. Cir. 1995) (en banc). Unfortunately for Buyers, however, lost sales of a competing product are legally compensable under 35 U.S.C. § 284. *Id.* at 1546. Moreover, in its reply brief, Buyers *admits* that the parties compete with one another. (See Def.’s Reply Br. (dkt. #793) 17.) Although Buyers attacks Douglas’s *evidence* on a number of fronts, that is not a reason to preclude the jury from considering lost profits altogether.⁶ Thus, whatever criticisms Buyers may have of Douglas’s evidence and methods of proof, it has not shown that lost profits were unavailable as a matter of law.

To recover lost profits, the patentee must establish that but for the infringement, it would have made additional profits. *Wechsler*, 486 F.3d at 1293. One way for a patentee to prove the requisite but-for causation (though not the only way) is by satisfying the four-factor test articulated in *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978): (1) demand for the patented product; (2) absence of non-infringing substitutes; (3) manufacturing and marketing capability to support the demand; and (4) the amount of profit it would have made. See *Rite-Hite*, 56 F.3d at 1545. By satisfying this test, the patentee sustains its burden of proving entitlement to lost profits, and “[t]he burden then shifts to the infringer to show that the inference is unreasonable for some or all of the lost sales.” *BIC Leisure Prods., Inc. v. Windsurfing Int’l, Inc.*, 1 F.3d 1214, 1219 (Fed. Cir. 1993).

⁶ In contrast, the Federal Circuit in *Wechsler* concluded that lost profits were unavailable as a matter of law because Wechsler did not produce a product until one year after the infringement period ended, lacked the capacity to do so, and presented no evidence that the infringing sales preempted subsequent sales or eroded the market price once he finally *did* enter the market. See *Wechsler*, 486 F.3d at 1293-94.

Only the second *Panduit* element, is really at issue here. While Douglas conceded that it could not prove the traditional second *Panduit* element, the Federal Circuit has held that “a patent owner may satisfy the second *Panduit* element by substituting proof of its market share for proof of the absence of acceptable substitutes,” as Douglas did at trial. *BIC Leisure Prods.*, 1 F.3d at 1219. Nevertheless, Buyers contends that Douglas did not offer “sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture.” *Grain Processing Corp. v. Am. Maize- Prods. Co.*, 185 F.3d 1341, 1350 (Fed. Cir. 1999). Specifically, Buyers argues that Douglas’s construction of the hypothetical but-for world ignored:

(1) the inapplicability of Douglas’ historic market share; (2) the impact of market segmentation; (3) the effect of price sensitivity on demand; and (4) the market power of Douglas’ reputation and brand loyalty.

(Def.’s Br. Supp. (dkt. #758) 19.) These failures, in Buyers’ view, wholly undermine Douglas’s case, such that the jury had no evidentiary basis to award lost profits.

In response, Douglas points out that the jury had substantial evidence on which to base its award of lost profits, including: Douglas’s operating plans; testimony from James Janik and Gary Watson; and the analysis and testimony of its damage expert, Richard Bero. Douglas also points to extensive evidence of product competition and the operation of the market. Coupled with the highly deferential standard due a jury verdict in the face of a Rule 50(b) motion, the court agrees with Douglas that a reasonable jury had ample proof to find Douglas was entitled to lost profits.

Indeed, the claimed errors on which Buyers now focuses were all points it had the opportunity to challenge before the jury by offering testimony and argument of its own. For

example, Buyers was free to attempt to prove and argue that its own products occupied a separate market from Douglas's plows due to the price differential (and the related price sensitivity of consumers), just as it was free to prove and argue that Douglas and Buyers competed in separate segments of a market divided between business/homeowner and commercial purchasers. The jury, however, plainly rejected those arguments, as it did the competing damages theory offered by Buyers' own damage expert, Andrew Finger.

On the issue, the Federal Circuit's decision in *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369 (Fed. Cir. 2003), is instructive:

[F]ailure to present all of the economic evidence that Harris now identifies does not mean that Ericsson failed to present sound economic evidence. Harris was entitled to present its own damages theory regarding, for example, how cross-elasticity calculations and second-sourcing would have affected the "but for" market. It was ultimately up to the jury, however, to weigh the credibility of the parties' opposing theories and evidence. . . . We will not overturn a jury's determination as to the amount of a damages award when, as in this case, that verdict was supported by substantial evidence.

Id. at 1378.

Buyers also argues that Bero's market share figure was entirely arbitrary, because he performed no accounting to reduce the *historical* market share of 60% to the 50% figure he ultimately employed. However, Bero testified that he made the downward adjustment to recognize consumers' price sensitivity in light of the higher prices of Douglas plows. While Bero was unable to offer a *quantitative* analysis for reaching that figure, the jury could have credited the adjustment he made, particularly in light of information Bero had gleaned from his interviews with eight of the top ten Buyers dealers. Given the deference the court owes to the jury, the court will not override its decision to credit Douglas's not unreasonable, if

decidedly imperfect, lost profits analysis over Buyers' claim of insufficient proof, especially when it was Buyers' wrongful infringement that created that uncertainty. "The determination of a damage award is not an exact science." *Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1327 (Fed. Cir. 1987). It is enough if the evidence "show[s] the extent of the damages as a matter of just and reasonable inference, although the result be only approximate." *Id.* (quoting *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931)).

ii. Direct and Indirect Infringement

Buyers also asks the court to enter judgment of zero dollars in damages based on its contention that Douglas failed to prove indirect infringement at trial. This argument is founded on the underlying premise that Buyers could not have *directly* infringed the '700 patent because all of its claims require a vehicle and Buyers does not sell vehicles. Therefore, Buyers argues, Douglas could *only* prevail on an indirect infringement theory, requiring it to prove *knowledge* of infringement -- recently redefined in the patent context as either actual knowledge of infringement or willful blindness. *See Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068-69 (2011). Since Douglas offered no such evidence to support,⁷ Buyers contends that the court must enter an award of zero dollars and require a new trial in which Douglas could attempt to prove *indirect* infringement and related damages.

Buyers has raised this same argument no fewer than three times before: (1) a motion for leave to file a supplemental brief regarding non-infringement (dkt. #594); (2) a motion

⁷ The evidence of damages offered at trial principally related to sales of Buyers' snowplow assemblies (that is, to *direct* infringement).

in limine seeking to exclude any damages theories regarding indirect infringement due to non-disclosure (dkt. #622); and (3) proposed jury instructions on indirect infringement (dkt. #629). Each time, the court has rejected this argument on the grounds that the Federal Circuit *directed the entry of a judgment of infringement* on independent claim 45. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1343 (Fed. Cir. 2013) (holding that “the accused products meet every limitation of claim 45 as properly construed”). Buyers’ argument is, therefore, rejected for all the reasons previously articulated. *See Caisse Nationale*, 90 F.3d at 1270 (reconsideration not an appropriate vehicle for rehash of old arguments).

iii. Foreign Sales

Buyers next asks the court to enter judgment excluding damages on any sales it made to customers in Canada, because (1) generally, patents do not operate extraterritorially to prohibit infringement abroad; and (2) Douglas never invoked 35 U.S.C. § 271(f), the exception to that general rule, as a source of infringement. Despite Douglas seeking damages on the alleged sales since its original damage report served on September 24, 2010 (dkt. #295), Buyers failed to raise this issue during the first trial in 2010, nor did it raise the issue in any of the pretrial proceedings on remand. It was not until midway through the damages trial that Buyers first argued some of Douglas’s long-claimed sales could not support a damages award in the United States, at a point when Douglas was in no position to cure any defect. Assuming without deciding that Buyers may have had a viable argument with respect to these sales, its delay in raising it is unreasonable and prejudicial to Douglas. The court, therefore, declines to take it up now as part of a motion under Rule 50(a).

iv. Willfulness

Finally, Buyers asks the court to enter judgment in its favor on Douglas's claims of willful infringement, arguing that it did not present evidence at trial to support a finding of willfulness. As Douglas accurately points out, however, this is because Douglas *abandoned* its claim for willful infringement well before trial. (*See, e.g.*, Feb. 13, 2014 Opinion & Order (dkt. #609) 6 (agreeing with Douglas that “additional briefing is unnecessary with respect to willful infringement since that claim is no longer being pursued”).) While Douglas is likely precluded from pursuing such a claim elsewhere, *see Acumed LLC v. Stryker Corp.*, 525 F.3d 1319, 1323-26 (Fed. Cir. 2008) (discussing claim preclusion principles in patent infringement litigation), it makes no sense to enter judgment in favor of Buyers on a claim that was never formally adjudicated. Accordingly, Buyers' motion for an express judgment on willful infringement will be denied.

B. New Trial

Under Rule 59(a), a new trial may be granted “if the verdict is against the clear weight of the evidence or the trial was unfair to the moving party.” *Clarett v. Roberts*, 657 F.3d 664, 674 (7th Cir. 2011) (quoting *David v. Caterpillar, Inc.*, 324 F.3d 851, 863 (7th Cir. 2003)). Buyers advances two distinct grounds for a new trial, which the court will address in turn.

i. Apportionment of Damages and Instructions

Buyers argues that the jury's royalty award was against the clear weight of the evidence because Douglas failed to present evidence apportioning its damages between the patented features of Douglas's snowplows and the unpatented features. In a closely related

argument, Buyers contends that this court erred in failing to instruct the jury on proper apportionment, citing *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011), in which the court held that a patentee “must in every case give evidence tending to separate or apportion the defendant’s profits and the patentee’s damages between the patented feature and the unpatented features.” *Id.* at 1318 (quoting *Garretson v. Clark*, 111 U.S. 120, 121 (1884)).⁸

An exception to the requirement of apportionment lies in the “entire market value rule,” which “allows for the recovery of damages based on the value of an entire apparatus containing several features, when the feature patented constitutes the basis for customer demand.” *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 901 (Fed. Cir. 1986); *see also LaserDynamics*, 694 F.3d at 67 (entire market value rule is a “narrow exception” to general rule requiring apportionment). Buyers argues that Douglas improperly claimed lost profits not just on the linkage mechanism covered by the ‘700 patent, but on the snowplow assembly as a whole, contrary to the general rule requiring apportionment. Furthermore, Buyers argues, the jury could not properly have applied the entire market value rule, because the evidence at trial established that the linkage mechanism of the ‘700 patent does *not* drive customer demand for Buyers’ plows.⁹ Finally, Buyers argues that this court prejudicially erred in failing to give instructions on apportionment or on the entire market value rule, both of which Buyers proposed and the court rejected at trial.

⁸ The same holds true of royalties. *See LaserDynamics, Inc. v. Quanta Comp., Inc.*, 694 F.3d 51, 67 (Fed. Cir. 2012) (“it is generally required that royalties be based not on the entire product, but instead on the ‘smallest salable patent-practicing unit’”).

⁹ In particular, James Janik, President of Douglas Dynamics, testified that the hydraulic system is the “heart” of the Douglas snowplow.

Thus, Buyers argues, the jury's verdict improperly awarded Douglas damages for the entire snowplow unit, over its objections and against the clear weight of the evidence, requiring a new trial. This argument rises and falls on a single, central assumption: the linkage mechanism was the only "patented feature" of the '700 patent. As Douglas points out, however, the '700 patent is directed at the *entire snowplow assembly*, not just at the linkage mechanism. (See U.S. Patent No. Re. 35,700 (dkt. #1-3).) In contrast, the patent at issue in *LaserDynamics* was directed to a method of optical disc discrimination enabling an optical disc drive to automatically identify the type of disc placed in the drive. 694 F.3d at 56. As a result, the patentee in *LaserDynamics* was not entitled to a running royalty on the total sales of the infringer's *laptop computers*. *Id.* at 60. Likewise, the patent in *Uniloc* was directed to a software registration system to deter software copying, and the accused product was the Product Activation feature of Microsoft's Word XP, Word 2003, and Windows XP programs. 632 F.3d at 1296-97. In that case, the patentee improperly based its royalty calculation on Microsoft's approximate total revenue for Microsoft Office and Windows. *Id.* at 1318. The *Rite-Hite* case similarly involved a patent for a device for securing a vehicle to a loading dock to prevent the two from separating during loading and unloading, 56 F.3d at 1542, while the accused products were dock levelers that were *sold with* the restraints but did not "function together with the patented component in some manner so as to produce a desired end product or result," *id.* at 1550.

In its reply, Buyers argues that Douglas's *claim* in the '700 patent to the entire snowplow assembly does not change the apportionment analysis, because the crux of the invention is the linkage mechanism. For example, in *Dataquill Limited v. High Tech Computer Corporation*, 887 F. Supp. 2d 999 (S.D. Cal. 2011), the court considered patents directed at

handsets with particular features, such as the removal of “access capability” and “optional features such as touch sensitive screens or integrated cameras.” *Id.* at 1003. Although the patents *ostensibly* claimed the entire apparatus, the district court held that the accused products had “multiple features that [were] clearly not claimed by the patents-in-suit, such as the ability to make phone calls and the ability to send and receive text messages.” *Id.* at 1027. In fact, plaintiff later conceded that “the devices have both infringing features and non-infringing features.” *Id.* Thus, even though the patents at issue in *Dataquill* technically claimed the handheld data entry units themselves, *see, e.g.*, U.S. Patent No. 7,139,591 (filed Nov. 21, 2006), the court found the other features *not* covered by the patent required either apportionment or application of the entire market value rule. *See also In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11 C 9308, 2013 WL 5593609, at *13-14 (N.D. Ill. Oct. 3, 2013) (although claims read onto systems and devices beyond the Wi-Fi chip at issue, the Wi-Fi chips themselves included all the instructions to those devices, meaning the chip was the smallest patent-practicing unit).

This is something of a close question. On the one hand, the claims certainly cover the entirety of the snowplow assembly, unlike the majority of cases that Buyers cites, suggesting that it would be inappropriate to ignore the value of those claimed elements. *See ThinkOptics, Inc. v. Nintendo of Am., Inc.*, No. 6:11-CV-455, 2014 WL 2859578, at *2 (E.D. Tex. Jun. 21, 2014) (“While it is sometimes necessary to apportion the smallest salable patent practicing unit to remove the value of unclaimed elements, Nintendo has not cited any precedent permitting the complete removal of the value of *claimed* elements.”) (emphasis added). On the other hand, damages “should not turn on claim draftsmanship such that the owner of an improvement patent may deliberately add dependent claims

directed to unimproved conventional devices to expand the royalty base.” *Univ. of Pittsburgh of Commonwealth Sys. of Higher Educ. v. Varian Med. Sys., Inc.*, 561 F. App’x 934, 947 (Fed. Cir. 2014).

Ultimately, however, the court concludes that the ‘700 patent is distinguishable from the patents involved in cases like *Dataquill*. Whether or not the linkage mechanism is the “heart of the invention,” the ‘700 patent is not *only* directed at that mechanism. On the contrary, the patent protects a snowplow assembly that is not only easy to attach and detach, but also retains other desirable characteristics by virtue of the arrangement of its other parts. For instance, the entirety of the assembly can be removed as a single unit, leaving nothing behind on the vehicle, and the A-frame remains upwardly pivotable to allow the user to stack snow. (See ‘700 patent, 1:16-2:27.) The linkage mechanism, *combined* with the rest of the assembly in a particular way, creates an improved snowplow assembly -- and it is Buyers’ improved snowplow assemblies, as a whole, that infringe the claims.

Thus, the invention of the ‘700 patent is more akin to the invention considered by the Federal Circuit in *University of Pittsburgh*. In that case, the patent claimed an “RPM System” adapted for use with a beam generator; one of the claims, claim 38, also included the beam generator itself. *Univ. of Pittsburgh*, 561 F. App’x at 947. The Federal Circuit held that apportionment was not required, because claim 38 did not merely include the beam generator as an “accessory,” “it claim[ed] an apparatus where the beam generator and the RPM System operate via a gating signal where one actuates the other. Indeed, the evidence at trial show[ed] that Varian itself . . . acknowledged the value added by the function of the combined apparatus.” *Id.*; see also *Rite-Hite*, 56 F.3d at 1550 (requiring apportionment

where patented and unpatented features did *not* function together to create a particular result).

To the extent that claim 38 still added an “unimproved conventional device” to the royalty base, the Federal Circuit also concluded that many of the factors set forth in *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), directed the jury to reward the inventor only for the value of the invention. *Univ. of Pittsburgh*, 561 F. App’x at 947-48. Similarly, while the court recognizes that *University of Pittsburgh* is non-precedential and is “fact- and record-specific,” *id.* at 950, Buyers has demonstrated neither that it would be appropriate to exclude the claimed assembly from damages, nor that the lack of instruction on apportionment was not ameliorated by the court’s *Georgia-Pacific* instruction.

ii. Exclusion of the Curtis Settlement Agreement

As it has before, Buyers also challenges the court’s exclusion of the Curtis settlement agreement. Specifically, Buyers objects to the court’s application of the *LaserDynamics* decision, in which the Federal Circuit affirmed its “longstanding disapproval of relying on settlement agreements to establish reasonable royalty damages,” except under “certain limited circumstances.” 694 F.3d at 77 (citing *ResQNet*, 594 F.3d at 870-72). Unlike the license in *ResQNet*, the Federal Circuit found the settlement in *LaserDynamics* was not “uniquely relevant and reliable,” *id.* at 78, as did this court with respect to the Curtis settlement agreement. While Buyers repeats the contention that this was the wrong “test,” it offers no new evidence or argument persuading the court that the Curtis settlement agreement should be admissible in light of the general disapproval of admitting such

settlement agreements to establish royalty damages. The mere fact that it is the *only* example of a “license” available does not make it “admissible and probative.”

III. Douglas’s Motion to Alter or Amend

Next, Douglas seeks to alter the judgment to include the following additional amounts:¹⁰

| | |
|--|-----------------------|
| Prejudgment interest on the 2014 verdict regarding the ‘700 patent | \$1,526,100.00 |
| Prejudgment interest on the 2011 verdict regarding the ‘978 and ‘530 patents | \$71,936.00 |
| Post-judgment interest on the 2011 verdict regarding the ‘978 and ‘530 patents | \$916.00 |
| Post-verdict royalties for units sold after the 2011 trial | \$482,400.00 |
| Attorney’s fees relating to the 2011 trial | \$463,733.00 |
| Attorney’s fees relating to the 2014 trial | \$91,794.00 |
| Total | \$2,636,879.00 |

Buyers does not object to the calculation of post-judgment interest on the 2011 jury verdict (by far the smallest sum), but does object to Douglas’s request for prejudgment interest, post-verdict royalties and attorney’s fees, each of which the court takes up below.

A. Prejudgment Interest

“In the typical case an award of prejudgment interest is necessary to ensure that the patent owner is placed in as good a position as he would have been in had the infringer

¹⁰ Buyers also includes the court costs in its chart of amounts that Douglas seeks to add, but those are properly discussed in the context of the bill of costs, not the motion to alter or amend.

entered into a reasonable royalty agreement.” *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983). The award of prejudgment interest in patent cases is governed by 35 U.S.C. § 284. Since the overriding purpose of that statute is to afford patent owners complete compensation, the Supreme Court explained in *Devex* “that prejudgment interest should ordinarily be awarded.” *Id.* Thus, “prejudgment interest should be awarded under § 284 absent some justification for withholding such an award.” *Id.* at 657.

Buyers argues that prejudgment interest is not warranted in this case because Douglas unduly delayed filing this lawsuit. While the Supreme Court specifically noted that delay can justify the denial of an award of prejudgment interest, *see Devex*, 461 U.S. at 657, the Federal Circuit has since advised that withholding of prejudgment interest based on delay is also the exception, “not the rule,” and that “the discretion of the district court is not unlimited” in this respect. *Lummus Indus., Inc. v. D.M. & E. Corp.*, 862 F.2d 267, 275 (Fed. Cir. 1988). Only where the delay has actually prejudiced the defendant may the court deny prejudgment interest on those grounds. *Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1361-62 (Fed. Cir. 2001).

In this case, Douglas first acquired and inspected one of Buyers’ snowplows in or around the fall of 2007. At that time, Douglas claims it performed testing on the plow’s mechanical aspects, not on the hydraulic or electric systems, nor did it analyze the plow in relation to its patents. Even so, Buyers points out that sometime in 2007, Douglas received “verbal information” from its counsel, asking the court to infer that Douglas likely could have sued Buyers at that point, but chose not to do so. In 2008, Buyers expanded its product line from its single HD/Ex model, adding the MD and VX models, which Douglas claims prompted it to perform additional testing and to investigate the intellectual property

issues surrounding those plows. After what Douglas describes as a “thorough investigation,” it filed suit in April of 2009, alleging infringement of five of its patents. Even then, Buyers contends that Douglas waited until after Buyers had concluded pre-season sales event before serving the complaint.¹¹

Buyers claims prejudice by Douglas’s decision to delay asserting its intellectual property rights for a full year and a half after the first Buyers plow was made available through distributors. Because Douglas waited to file suit, Buyers specifically claims it invested substantially in building up its snowplow business and establishing a place for itself in the market. According to Buyers, Douglas finally filed suit only *after* Buyers made these investments, despite having known all along that it had a viable case for patent infringement.

Assuming this timing to be accurate, the court is not persuaded that a delay of a year and a half is “undue” on the facts of this case. Indeed, given the stakes, it was not unreasonable for Douglas to have spent a year and a half investigating Buyers’ products and comparing them to its various patents in order to determine which patents, if any, Buyers’ plows infringed. In any case, Buyers has presented no evidence that this initial delay was due to more than diligent investigation in light of the large number of patents Douglas has held over the years and the need to ensure its suit was warranted under Federal Rule of Civil Procedure 11.

The fact that Douglas filed suit in April but did not serve Buyers until June has no bearing on this analysis, since Buyers admits Douglas *did* inform it of its intent to enforce its

¹¹ There is no dispute that Douglas *had* sent a letter informing Buyers of the potential infringement on April 30, 2009.

intellectual property rights in the letter of April 30, 2009, around the time Buyers filed suit. Moreover, Buyers was aware of Douglas's products and their presence in the market even before that, given that Douglas was one of its principal competitors. "Generally, prejudgment interest should be awarded from the date of *infringement* to the date of judgment." *Nickson Indus., Inc. v. Rol Mfg. Co.*, 847 F.2d 795, 800 (Fed. Cir. 1988) (emphasis added). That Douglas sent a letter asserting its intellectual property rights in April of 2009, but did not mention having already filed suit, has no particular bearing on the prejudgment interest period.

Having decided to award Douglas prejudgment interest, the court must now determine how to measure that award. Douglas's damages expert Richard Bero calculated prejudgment interest using the prime rate, compounded monthly, for a total award of \$1,598,036. Buyers objects to this method, arguing that it does not put Douglas in the position it would have been in absent the infringement, which is the purpose of awarding interest under § 284. *See Gen. Motors*, 461 U.S. at 655; *Crystal Semiconductor*, 246 F.3d at 1361 ("An award of prejudgment interest serves to make the patentee whole because the patentee also lost the use of its money due to infringement."). Instead, it asks the court to award interest at the Treasury bill rate, compounded annually, to more accurately reflect what Douglas would actually have earned on any royalties and profits it received. The court agrees with Buyers' approach and will, therefore, award prejudgment interest in the amount of \$3,626 on the first award and \$47,041 on the second award.¹²

¹² The court takes these figures from the declaration of Andrew Finger, who calculated interest at the Treasury bill rate, compounded annually. (See Andrew Finger Decl. (dkt. #783) ¶ 13 n.13, ¶ 18 n.20.) The court declines to adopt Buyers' recommendation that interest be calculated as if Douglas would have received a reasonable royalty on a deferred payment plan as unnecessary, both because it

B. Post-Verdict Royalties

Douglas also seeks an award of royalties based on Buyers' infringement of Douglas's U.S. patent nos. 5,353,530 and 6,944,978. After the first trial, the court denied Douglas's motion for a permanent injunction, and instead set an ongoing, reasonable royalty. The Federal Circuit reversed the denial of the injunction, *and* vacated and remanded the determination of the royalty rate for post-trial sales based in part on reliance on the now-discredited 25% rule. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1343-46 (Fed. Cir. 2013). Meanwhile, Buyers apparently sold off the remainder of its infringing inventory, totaling 1,206 units sold post-verdict.

Douglas now asks the court to award a royalty rate of \$400 for each unit sold post-verdict, or about 14% of Buyers' average unit sales price over this period. Douglas contends that this rate is reasonable because Buyers knew full well that these units infringed but elected to sell them anyway, rather than designing a non-infringing alternative. At a minimum, Douglas argues, this makes Buyers' post-verdict sales willful, justifying enhancement of any hypothetically negotiated royalty to \$400/unit. *See SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1385 (Fed. Cir. 2013) (affirming district court's decision to award enhanced damages for willful post-verdict sales even where plaintiff did not pursue a willfulness claim at trial).

Buyers argues that because the jury made its own determination of a reasonable royalty rate in awarding damages on the '530 and '978 patents, the court must employ the

is not a typical term to a negotiation and overly complicates the calculation of a relatively small interest payment compounded annually.

same rate in calculating any post-verdict royalties. The Federal Circuit “easily dispose[d]” of that very argument in *Amado v. Microsoft Corp.*, 517 F.3d 1353 (Fed. Cir. 2008).

On the other side of the dispute, Microsoft argues that the district court was entitled to award Amado no more than \$0.04 per infringing unit, the amount the jury found to be a reasonable royalty. We easily dispose of this argument as well. The jury’s award of \$0.04 per unit was based on Microsoft’s infringing conduct that took place *prior to the verdict*. There is a fundamental difference, however, between a reasonable royalty for pre-verdict infringement and damages for post-verdict infringement. Cf. *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1317 (Fed. Cir. 2007) (“[P]re-suit and post-judgment acts of infringement are distinct, and may warrant different royalty rates given the change in the parties’ legal relationship and other factors.”) (Rader, J., concurring). Prior to judgment, liability for infringement, as well as the validity of the patent, is uncertain, and damages are determined in the context of that uncertainty. Once a judgment of validity and infringement has been entered, however, the calculus is markedly different because different economic factors are involved.

Id. at 1361-62 (emphasis added).

Buyers alternatively argues that Douglas’s suggested royalty is founded on the faulty premise that infringement occurred post-verdict, when in fact that linkage was “already made” at the time the verdict issued. See 35 U.S.C. § 271(a) (“whoever without authority makes . . . any patented invention . . . infringes the patent”). In particular, Buyers argues that it was reasonable to assume that already-manufactured units would be subject to the same royalty rate as the earlier sales, pointing to various district courts that have awarded supplemental damages at the jury rate for other periods of infringement. See, e.g., *Metso Minerals, Inc. v. Powerscreen Int’l Distribution Ltd.*, 833 F. Supp. 2d 333, 347 (E.D.N.Y. 2011) (“Courts routinely grant motions for a further accounting where the jury did not consider certain periods of infringing activity *post-verdict*.”). The *Metso* court cites other cases

holding similarly, but *none* supports Buyers' argument that the "further accounting" should adopt the same royalty rate as applied by the jury to pre-verdict sales. *Id.* Indeed, the *Metso* court itself noted that the "reasonable royalty rate to be applied to the Defendants' post-verdict sales is not necessarily the same as the reasonable royalty that was applied to the Defendants' pre-verdict sales" and set a briefing schedule to determine the appropriate post-verdict royalty rate. *Id.* at 348 (citing *Amado*, 517 F.3d at 1361).

The only other case Buyers cites that arguably supports applying a jury's pre-verdict royalty to post-verdict sales is *Hynix Semiconductor Inc. v. Rambus Inc.*, 609 F. Supp. 2d 951 (N.D. Cal. 2009). Even in that case, however, the court recognized that "a royalty rate should evolve to track the change in the relationship between the parties caused by the progress of the litigation." *Id.* at 965 (citing *Amado*, 517 F.3d at 1362). Thus, Buyers' argument that an award of post-verdict royalties *must* be limited to the jury's determination of a reasonable, pre-verdict royalty rate has no merit.

More persuasive is Buyers' argument that Douglas's royalty calculation includes double-counting, because Douglas was likely granted lost profits by the jury on half of the old-design units in its inventory by virtue of the jury's damage award in the second trial through April 15, 2011. Douglas objects that Buyers improperly speculates as to the composition of the jury's verdict, pointing out that the jury returned a general verdict without apportioning damages between lost profits and royalties, although Buyers' breakdown of the jury's likely calculations of lost profits and royalties is far more persuasive. (*Compare* Declaration of Andrew D. Finger (dkt. #783), ¶¶ 34-38, *with* Reply Brief In Support of Douglas's Motion to Amend (dkt. #790) p. 20 & n.8.) Indeed, Douglas's request at trial for lost profits on 50% of Buyers' infringing sales and its more detailed

defense of the jury's damage award in response to Buyers' renewed motion for judgment or new trial, strongly support Buyers' reading of the award's composition. (Dkt. #775, pp. 8-13.)

Moreover, the court adopted a general damage verdict that was almost verbatim what Douglas and Buyers both proposed. (*Compare* dkts. ##630 & 635 *with* dkt. #730.) To the extent that Douglas sought a lost profits award for 50% of the units sold, it cannot now seek to add to that amount a royalty award on those same units without subjecting Buyers to a substantial risk of double counting. Accordingly, all units sold through April 15, 2011, and claimed for lost profits at trial fall outside the court's award for post-verdict royalties. Douglas does not dispute Buyers' assertion that this would leave 672 units eligible for enhanced royalties.

Finally, Buyers objects to the calculation of Douglas's proposed royalty rate. In support, Buyers rehashes its "smallest salable infringing unit" argument in hopes of narrowing the appropriate royalty base, an argument that the court has considered and rejected on multiple occasions, including earlier in this opinion. Buyers also contends that any royalty rate should be limited to its cost of altering the manufactured lift frames to include a non-infringing linkage mechanism, since Buyers would not rationally negotiate a royalty that exceeds the \$100-per-assembly cost to Buyers of retrofitting its already-manufactured assemblies, much less a royalty rate of \$400 per assembly sought by Douglas. Accordingly, Buyers asks the court to consider this practical constraint on any royalty negotiation as an "additional economic factor[] arising out of the imposition of an ongoing royalty." *Paice*, 504 F.3d at 1315.

In something of a non sequitur, Douglas attempts to bolster its argument that Buyers' alleged replacement cost is irrelevant by quoting the Federal Circuit's statement on appeal that the reasonable royalty rate is intended to "compensate the patentee for the use of its technology." *Douglas Dynamics*, 717 F.3d at 1346. Of course, the cost of replacing an infringing unit with a non-infringing alternative can be an important factor in arriving at a reasonable royalty. *See Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1372-73 (Fed. Cir. 2008) (district court did not err in reducing royal rate to reflect that infringer probably could have designed an acceptable alternative), *mandate recalled and amended on other grounds*, 557 F.3d 1377 (Fed. Cir. 2009). More persuasive is Douglas's argument that the willfulness of the post-verdict sales justifies enhancing a hypothetically-negotiated rate. *See* 35 U.S.C. § 284. Even granting Douglas the benefit of that enhancement, however, the court agrees that a royalty of \$400 per unit is unreasonable. Instead, after considering all factors leading the parties to negotiate a reasonable royalty -- including the certainty of selling a non-infringing product under a valid license and Douglas's strong incentive to deny a competitor a license at any price -- the negotiated, post-verdict royalty rate would be \$200 per unit. This leaves a total royalty award on 672 units of \$134,400.

C. Attorney's Fees

Finally, Douglas requests an award of additional attorney's fees for: (1) establishing infringement of the '530 and '978 patents; and (2) responding to Buyers' repeated, post-appeal attempts to re-litigate liability with respect to the '700 patent. Under 35 U.S.C. § 285, "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing

party.”¹³ While this standard used to require “material [and] inappropriate conduct related to the matter in litigation,” *Brooks Furniture Mfg., Inc. v. Dutailer Int’l, Inc.*, 393 F.3d 1378, 1381 (2005), the Supreme Court recently held in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014) that “an ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.” *Id.* at 1756. In formulating this standard, the Supreme Court expressly rejected the Federal Circuit’s standard as “overly rigid” and “inherently inflexible,” and concluded that district courts could award fees even where unreasonable conduct was “not necessarily independently sanctionable.” *Id.* at 1756-57. Accordingly, the court briefly considers each of Douglas’s fee requests applying the *Octane Fitness* standard.

i. Infringement of the ‘530 and ‘978 Patents

Douglas first asks for fees related to establishing infringement of the ‘530 and ‘978 patents, arguing that neither was reasonably debatable. As a preliminary matter, Buyers objects wholesale to this request on the grounds that Douglas purportedly released its claim for fees in exchange for an early payment of the judgment. In particular, Buyer relies upon the following letter from George Solveson, one of Douglas’s attorneys, addressed to one of Buyers’ counsel, Todd Tucker , leading up to that payment.

Pursuant to your recent e-mail, Buyers has decided to pay Douglas the \$1+ million relating to the ‘530 and ‘978 patents in exchange for a release from Douglas. This is agreeable with Douglas with the reservation that pre-judgment and post-judgment interest and post-verdict royalty will be resolved and

¹³ While Douglas did not succeed on all its infringement claims, Buyers concedes by its silence, as it must, that Douglas is the “prevailing party” in this matter, having prevailed on infringement and validity for three of its five patents.

paid at a later time, and provided that the release will not prejudice the further efforts of Douglas to seek damages and/or royalties on the '700 patent and increased post-verdict royalty rates and interest based upon further proceedings.

(Christina J. Moser Decl. Ex. C (dkt. #782-2).)

Douglas responds that this letters “refers only to a “release from Douglas that the trial judgment has been satisfied,” pointing out that Tucker’s original e-mail uses that specific language. (*See* Aaron T. Olejniczak Decl. Ex. A (dkt. #774-1).) Whatever the import of this email exchange, Douglas further argues that the parties agreed only to a release of the judgment, once satisfied, and that there was no meeting of the minds with respect to any potential claim for attorney’s fees.

While neither party has provided a copy of an actual or even a draft “release,” Douglas cites to the satisfaction of judgment actually filed with the court on September 21, 2012, which states only that:

On November 23, 2012¹⁴ judgment was entered in favor of plaintiff Douglas Dynamics, LLC in the amount of \$1,018,248 in damages for pre-verdict infringement of U.S. Patent Nos. 5,353,530 and 6,944,978 (“the Judgment”) in the above-entitled action. Without waiving any right to seek any additional damages or recourse from Defendant that this Court and/or any Court of Appeals may award in this litigation for still-pending issues that are not satisfied by the Judgment, Plaintiff acknowledges that on August 29, 2012 defendant Buyers Products Company satisfied the Judgment.

(Satisfaction of Am. J. (dkt. #567) 1.)

The court finds the parties did not agree to release any potential claim for fees in light of the context provided by: Tucker’s original e-mail; a complete dearth of any mention of a claim for attorney’s fees, one way or the other, in the e-mail exchanges; the failure of

¹⁴ This appears to be an error, as the amended judgment was entered on November 23, 2011. (*See* dkt. #562.)

the parties to enter into any kind of formal release agreement typical in such instances (particularly when certain claims are unquestionably preserved by the parties); and, most importantly (in the absence of any definitive final release language), the language of the satisfaction of judgment. In particular, given that Tucker originally referred only to a release “that the trial judgment has been satisfied,” the court is unwilling to construe Solveson’s later mention of a “release” more broadly, encompassing not only the judgment but also possible claims for fees that went unmentioned by both sides, notwithstanding Solveson’s subsequent “reservation” for pre- and post-verdict interest on that judgment.

Next, Buyers argues that this is not an exceptional case. First, Buyers quotes this court’s previous findings that its positions were not “objectively baseless” in the course of resolving Douglas’s claims for willful infringement. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 747 F. Supp. 2d 1063, 1113 (W.D. Wis. 2010) (‘530 patent: “the claim language was susceptible to Buyers’ reasonable construction and acceptance of that construction at must would have led to a finding of noninfringement”; ‘978 patent: “Buyers’ infringement could not have been the result of objective recklessness with these unanswered questions floating about”). Second, Buyers attributes the need for litigation of this matter to Douglas’s “outrageously high damages positions and unreasonable settlement positions.” (Def.’s Br. Opp’n (dkt. #780) 15.)

Douglas argues that Buyers mistakenly refers to the “objectively baseless” standard as precluding this court’s finding of an exceptional case, contrary to the holding in *Octane Fitness*. Certainly, the Supreme Court held in *Octane Fitness* that conduct need not be independently sanctionable in order to justify an award of fees as an exceptional case. 134

S. Ct. at 1756-57. However, in this court's view, the circumstances that Douglas presents do not rise to the level of being "exceptional" under the *Octane Fitness* standard either.

Buyers took objectively reasonable litigation positions on infringement of the '530 and '978 patents. It was also objectively reasonable for Buyers to defend the litigation on the grounds that it believed those patents to be invalid, particularly given the crowded field of patents for snowplows and snowplow attachments. Indeed, Buyers' claims of invalidity with respect to the '530 patent survived summary judgment and went to trial. *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 745 F. Supp. 2d 876 (W.D. Wis. 2010). The mere fact that Buyers chose not to appeal the infringement findings with respect to those two patents, electing instead to redesign its assembly, is not enough to render this case "exceptional." There are myriad reasons an infringer could elect not to appeal this court's findings; the court declines to infer that Buyers' decision here suggests knowledge that it had no defense to Douglas's claims of infringement of the '530 and '978 patents from the outset of suit.

ii. Re-Litigation of '700 Patent

Douglas's second request for fees relates to Buyers' multiple attempts to re-litigate the Federal Circuit's finding of infringement of the '700 patent, which presents a far more unusual set of circumstances than the first. As a preliminary matter, it is not clear that dividing a single lawsuit into litigation stages and individual patents for purposes of assessing whether a case is "exceptional" is appropriate, although neither party really addresses this question. Buyers implicitly argues for a broader, holistic look at the case by making reference to its conduct throughout the litigation, while Douglas understandably would focus solely on Buyers' position on remand. Douglas's position seems somewhat at

odds with the text of the statute itself, which speaks of exceptional *cases*, not exceptional claims or instances of conduct. Douglas's position also seems somewhat at odds with the *Octane Fitness* prescription that the court "consider[] the totality of the circumstances" in assessing whether a case is exceptional. 134 S. Ct. at 1756.

That being said, Douglas makes a reasonable argument that Buyers went far beyond making a record with respect to its efforts to obtain reconsideration of previous rulings that in this court's repeated view had become law of the case, as discussed in the earlier sections of this opinion. As a result, Douglas was also forced to respond to the same arguments repeatedly before and after trial, which unnecessarily prolonged what is an already long, drawn-out case, particularly in this district. While it might not be independently sanctionable, Buyers' method of litigation, particularly with respect to the settled question of infringement on remand, arguably stands out as "exceptional" under the standard articulated in *Octane Fitness*. Tellingly, Buyers does not respond directly to the objections Douglas raises to its conduct regarding the '700 patent litigation on remand, instead focusing on the reasonableness of the rest of its behavior.

Still, the infringement issues were side ones on remand, and Douglas's responses quickly became a simple rote. Accordingly, the court finds this conduct (while excessive) does not by itself move this case into the exceptional category in this respect, and it will deny Douglas's request for fees incurred on remand.

ORDER

IT IS ORDERED that:

- (1) plaintiff Douglas Dynamics, LLC's motion to alter or amend (dkt. #749) is GRANTED IN PART and DENIED IN PART consistent with the opinion above;

- (2) defendant Buyers Products Company's motion to alter or amend (dkt. #755) is DENIED;
- (3) defendant's motion for judgment as a matter of law (dkt. #757) is DENIED;
- (4) defendant's motion for leave to file a supplemental brief in support of its motion to alter or amend (dkt. #770) is GRANTED; and
- (5) the clerk of court shall enter a final judgment in favor of Douglas Dynamics in the amount of \$9,935,983.

Entered this 31st day of December, 2014.

BY THE COURT:

/s/

WILLIAM M. CONLEY
District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

v.

BUYERS PRODUCTS COMPANY,

Defendant.

OPINION & ORDER

09-cv-261-wmc

This case is before the court following remand from an order of the Federal Circuit that (1) reversed this court's grant of summary judgment of non-infringement of patent no. Re. 35,700 ("the '700 patent"); (2) reversed the denial of a permanent injunction against continued infringement of patent no. 6,944,978 ("the '978 patent"); and (3) vacated and remanded the ongoing royalty award for patent no. 5,353,530 ("the '530 patent") and the '978 patent. (Dkt. #573.) To their credit, the parties have since stipulated to the entry of a permanent injunction (dkt. #584). In determining damages for infringement of the '700 patent, they also agree that: defendant Buyers Products Company ("Buyers") should provide updated sales figures covering the period from October 1, 2010 through April 15, 2011 (when the '700 patent expired); both parties' experts should update their expert reports to incorporate these additional sales; and ultimate resolution of damages should be addressed at a jury trial. Finally, the parties agree that any recalculation of royalties for the '530 and '978 patents should be deferred until after resolution of liability and damages on the '700 patent.

Even so, two issues as to the scope of remand remain in dispute. *First*, Buyers contends that the Federal Circuit set forth a new, unanticipated construction of

independent claim 45 of the ‘700 patent, and asks to update its invalidity arguments to address that construction. Plaintiff Douglas Dynamics, LLC (“Douglas”) opposes any reopening of discovery on this issue and asks this court to decide claim 45’s validity on the existing summary judgment submissions. *Second*, Buyers asks this court to limit its decision on remand to claim 45, while Douglas argues that the court should now also determine whether Buyers has infringed dependent claims 47, 48, 49 and 51.

Both parties have now fully briefed these two issues. (*See* dkt. ##580, 582, 585, 588.) After considering their arguments, the court has determined that: (1) Buyers may not expand the scope of its invalidity arguments as to claim 45; and (2) the court will consider infringement and, if necessary, the validity of dependent claims 47, 48, 49 and 51.

OPINION

I. Validity of Claim 45

In originally considering independent claim 45 of the ‘700 Patent, this court granted summary judgment of non-infringement to Buyers, based on what turned out to be an erroneous construction of the term “connected to” as requiring a direct connection. (Opinion & Order (dkt. #332) 45-48.) As a result, it declined to address Buyers’ counterclaims of invalidity of independent claim 45 or the infringement or validity of dependent claims 47, 48, 49 and 51, which were dismissed without prejudice. (Opinion & Order (dkt. #445) 16.)

In reversing this court, the Federal Circuit held that “the correct construction of the term ‘connected to’ in claim 45 is not limited to direct connections.” *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1343 (Fed. Cir. 2013). Accordingly, it instructed

this court to enter summary judgment of infringement on claim 45. Therefore, the court must now address the parties' arguments as to the validity of claim 45 and related dependent claims, before determining appropriate damages, if any, for the infringement of the '700 patent.

The parties diverge as to the appropriate way to proceed on this issue. Douglas asks the court to determine the validity of claim 45 based on the parties' existing briefing; Buyers argues that the Federal Circuit, in ruling that the term "connected to" may encompass indirect connections, has adopted a claim construction that neither party previously advocated, and asks for leave to assert additional prior art on remand bearing on that so-called "new" construction.

The court agrees with Douglas that it is more appropriate to decide this matter on the existing briefing. Contrary to Buyers' contention now, Douglas has contended throughout this litigation that "connected to" encompassed both direct and indirect connections. (*See* Pl.'s Resp. to Def.'s Mot. for Claim Construction (dkt. #83) 2 ("[T]he common and ordinary meaning of the word 'connected' is not limited to a direct connection, but may also include connections through intervening structures."). The Federal Circuit's holding merely adopted this construction. That the phrase "connected to" appears twice in claim 45 is essentially irrelevant, since there is no indication -- even in the portions of Douglas' brief that Buyers cites -- that Douglas ever distinguished between those two phrases in arguing for a construction encompassing indirect connections.

To the extent that Douglas's argument was couched in terms of the connection to the mounting frame, so, too, was the Federal Circuit's decision. *See Douglas Dynamics*, 717 F.3d at 1342 ("The district court erred . . . in construing the term 'connected to' in claim 45 to

require a *direct* connection between the A-frame and the mounting frame.”). The court, therefore, finds Buyers’ contention that this was somehow a “new” construction to be wholly unconvincing and concludes that this matter can and, in fairness to both sides, should be determined on the existing briefing.¹

II. Dependent Claims 47, 48, 49 and 51

The parties also dispute whether this court should determine infringement and validity as to dependent claims 47, 48, 49 and 51 on remand. Douglas contends that the Federal Circuit’s decision vacates this court’s determination of non-infringement by “necessary implication,” permitting this court to revisit those issues on remand. Buyers asks the court not to revisit that determination, principally because (1) the non-infringement decision is incorporated within the Federal Circuit’s mandate and thus precluded from further adjudication, and (2) Douglas did not argue for remand on this issue on appeal.

Again, the court agrees with Douglas. The court previously found, based on its claim construction, that Buyers’ snowplow assemblies could not infringe claim 45. This finding of non-infringement formed the sole basis for the court’s decision that its *dependent* claims were also not infringed as a matter of law, since “[a] claim in dependent form shall be construed

¹ The court also finds meritless Buyers’ assertion that because the Miller prior art coincided with Douglas’ proposed construction but not Buyers’, it was “inappropriate” to put that reference forth at summary judgment since no claim construction had been issued. Summary judgment is the “‘put up or shut up’ moment in a lawsuit, when a party must show what evidence it has that would convince a trier of fact to accept its version of events.” *Johnson v. Cambridge Indus., Inc.*, 325 F.3d 892, 901 (7th Cir. 2003) (citation omitted). Buyers certainly knew that claim construction was still an open issue, and given that it was on notice to produce all of its evidence at summary judgment, there is no reason why it should not have argued that claim 45 was invalid even under Douglas’ proposed claim construction. Its argument that additional, more focused briefing is appropriate because the previous summary judgment briefs dealt with a wide range of issues fails for the same reason.

to incorporate by reference all the limitations of the claim to which it refers.” 35 U.S.C. § 112; *see* Opinion & Order (dkt. #332) 48. In reversing this court’s finding of non-infringement on claim 45, the Federal Circuit necessarily vacated the finding of non-infringement on its dependent claims as well. It would defy logic to hold that the Federal Circuit *implicitly affirmed* the non-infringement of the dependent claims when the only grounds for doing so would have been the judgment it *explicitly reversed*.

Buyers’ other argument of substance for not examining the dependent claims on remand is even more muddled. While Douglas appealed the entire grant of summary judgment, Buyers’ apparently contends Douglas *argued* only the “connected to” language of claim 45 on appeal, meaning (according to Buyers) that the Federal Circuit could only have *addressed* claim 45 in its decision. Insofar as this argument is relevant at all, it actually appears to *support* Douglas’ point of view. “[A]n appellate mandate governs only that which was actually decided.” *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 137 F.3d 1475, 1478 (Fed. Cir. 1998). Because the Federal Circuit *decided* neither infringement nor validity as to the dependent claims, this court is not foreclosed from addressing them. *Id.* at 1478.²

To the extent that Buyers is contending Douglas *should* have explicitly argued other grounds for the dependent claims’ infringement, the court again disagrees. Douglas’ dependent claim-specific arguments were not addressed by this court because its ruling on independent claim 45 mooted them. As in *Exxon*, they have “bec[o]me a critical issue in the

² Buyers seeks to distinguish the *Exxon* case by pointing out that the Federal Circuit explicitly “expressed no view” on the relevant question, while it did not do so here. (Def.’s Resp. (dkt. #588) 5.) While this may be true, an express disclaimer is not necessary. *See Exxon Chem. Patents*, 137 F.3d at 1478 (“*Even without the express disclaimer in the court’s opinion, it would be incorrect to conclude that the court’s mandate encompassed an issue that was not presented to the court.*”) (emphasis added).

case only after [the Federal Circuit’s] decision on appeal.” *Id.* at 1479. Thus, Douglas could not reasonably have been expected to raise the merits of those mooted arguments in its initial appeal. *Cf. id.* (when doctrine of equivalents issue became moot after claims construction, appellee could not have been expected to defend the judgment on that basis on appeal).

Buyers’ remaining arguments are only briefly raised and similarly without merit. First, Buyers argues that it is pure speculation for Douglas to claim that, “had it presented the details of the additional limitations of the dependent claims to the CAFC, the CAFC would have found them to be present in the accused Buyers’ devices.” (Def.’s Resp. (dkt. #588) 6 (emphasis in original).) This entirely misconstrues Douglas’ arguments. Douglas is not arguing that the Federal Circuit necessarily *reversed* the judgment of non-infringement, it argues only that the judgment of non-infringement of these dependent claims based, as it was, solely on an incorrect construction of claim 45 did not withstand the Federal Circuit’s reversal of that construction. There is nothing speculative about this argument. Second, Buyers contends that it was unfairly deprived of the chance to argue other grounds for the invalidity of these dependent claims on appeal, but that is precisely what it will be permitted to do, to the extent addressed in its summary judgment briefs, now that infringement of those claims is again at issue.³ There is no inequity in using the claim construction now set forth by the Federal Circuit to resolve an issue that both parties previously briefed.

³ Specifically, Buyers contends that it “could have argued in support of this court’s conclusions as to those claims on grounds other than the ‘connected to’ limitation.” (Def.’s Resp. (dkt. #588) 7.) As this court has already noted, however, it reached no other “conclusions” as to the dependent claims in its initial order, which wholly undermines Buyers’ position.

III. Scheduling

Having determined the scope of remand, it remains for the court to set a schedule to put this case back on track for final resolution. Because the court has substantially adopted Douglas' position on the scope of remand, it will also adopt the basic schedule Douglas suggests. In the meantime, the court will revisit the pending summary judgment motions of the parties to decide the remaining, open issues discussed above.

ORDER

IT IS ORDERED that the scope of the remand is set as consistent with the opinion above. The court also adopts the following schedule to complete the issues remaining in this case:

| EVENT | DATE |
|--|----------------------------|
| Defendant's Supplemental Production on Damages | Nov. 8, 2013 |
| Plaintiff's Updated Damages Report for the '700 Patent | Jan. 17, 2014 |
| Defendant's Updated Damages Report for the '700 Patent | Jan. 31, 2014 |
| Rule 26(a)(3) disclosures, motions in limine, proposed voir dire, proposed jury instructions, proposed verdict forms due on any issues remaining for trial for the '700 patent | Feb. 14, 2014 |
| Oppositions to disclosures, motions in limine, etc. | Feb. 28, 2014 |
| Final Pretrial Conference | Mar. 26, 2014 at 3:00 p.m. |
| Jury Trial | Mar. 31, 2014 at 9:00 a.m. |

Entered this 4th day of November, 2013.

BY THE COURT:

/s/

WILLIAM M. CONLEY
District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

v.

BUYERS PRODUCTS COMPANY,

Defendant.

OPINION & ORDER

09-cv-261-wmc

This patent infringement action has a long and contentious history. When this case was first filed in April of 2009, plaintiff Douglas Dynamics initially asserted violations of 47 claims in five different patents. This court subsequently narrowed the scope of these claims at summary judgment, and a jury trial was held on the remaining infringement claims in October 2010. On appeal, the Federal Circuit reversed this court's grant of summary judgment of non-infringement as to independent claim 45 and dependent claims 47, 48, 49 and 51 in U.S. Patent No. RE 35,700 ("the '700 patent"). On remand, the court (1) agreed to take up defendant's challenge to the validity of those claims previously briefed by the parties but mooted by the court's original summary judgment ruling; (2) declined to allow Buyers to file a supplemental brief incorporating additional prior art references; and (3) set a schedule for the remainder of the case, with trial to take place in April of 2014. (*See* dkt. #592.)

Buyers has since moved this court to reconsider its denial of supplemental briefing (dkt. #595), in part because it filed for *ex parte* re-examination of the '700 patent with the Patent and Trademark Office ("PTO"). On January 17, 2014, the PTO granted that request, finding that two, newly-asserted prior art references -- U.S. Patent No. 5,036,068

to Ciula and U.S. Patent No. 4,369,590 to Mille -- presented “substantial new questions of patentability” with regard to all of the remaining claims of the ‘700 patent. (*See Moser Decl. Ex. A* (dkt. #606-1) 2.) On January 31, 2014, Buyers then moved to stay this action pending the PTO’s reexamination of the ‘700 patent. (Dkt. #605.) Although the PTO has now indicated it will consider the question of validity (which is essentially the same question confronting this court), it will do so based on prior art never raised in this lawsuit. Since Douglas is entitled to a resolution of this dispute as the parties actually litigated it -- not as Buyers would now litigate it with the benefit of hindsight some five years in -- the court will deny its motions for supplemental briefing and a stay.

OPINION

The Federal Circuit has “consistently recognized the inherent power of the district courts to grant a stay pending reexamination of a patent.” *Procter & Gamble Co. v. Kraft Foods Global, Inc.*, 549 F.3d 842, 849 (Fed. Cir. 2008). Generally, this court considers four factors in determining whether a stay of an action is warranted:

(1) whether the litigation is at an early stage; (2) whether a stay will unduly prejudice or tactically disadvantage the non-moving party; (3) whether a stay will simplify the issues in question and streamline the trial; and (4) whether a stay will reduce the burden of litigation on the parties and on the court.

Grice Engineering, Inc. v. JG Innovations, 691 F. Supp. 2d 915, 920 (W.D. Wis. 2010).

Douglas argues, and Buyers concedes, that the first factor weighs heavily against entering a stay. This litigation is by no means at an early stage: there has already been a full jury trial, an appeal and a remand with a second jury trial now just two months away. The parties have been preparing for that second trial since this court issued its order on the

scope of remand on November 5, 2013. Though Buyers is correct that in some circumstances, courts will stay litigation pending reexamination even at the eleventh hour, Buyers has known of the prior art cited in its recent reexamination request for years. Moreover, the “broad” construction of the element “connected to” adopted by the Federal Circuit has been asserted by Douglas from early in this litigation. Although the court does not necessarily credit Douglas’ argument that Buyers’ request for reexamination is a dilatory tactic calculated to prejudice its opponent, the fact remains that Buyers could have raised these prior art references in this court or requested reexamination years ago. The parties, and the court, derive substantially less benefit from staying the proceedings now, after so many resources have already been expended.

Additionally, though Buyers argues that Douglas will not be prejudiced by a stay, the fact remains that reexamination will allow Buyers to challenge the ‘700 patent on grounds that this court has expressly declined to consider in the present litigation. In electing to determine the ‘700 patent’s validity on the existing briefing, the court noted that Buyers “was on notice to produce all of its evidence at summary judgment” the first time around. (Nov. 5 Opinion & Order (dkt. #589) 4 n.1.) This is still true. To stay this litigation in favor of the PTO -- and a determination that will be premised on the two prior art references Buyers *failed to assert at summary judgment* -- is to give Buyers a way around this court’s previous decision.

While Buyers’ new position may have resulted not from bad faith, but instead from a change in counsel and a corresponding shift in litigation strategy, it certainly prejudices Douglas to allow Buyers to circumvent the scope of the remand, to say nothing of the resources that Douglas has already expended in pursuit of its claims under the ‘700 patent

before this court, the Federal Circuit and in preparation for the April retrial of this matter, simply because Buyers has now identified what it apparently believes is stronger prior art. Even if Buyers is correct that this additional prior art will ultimately invalidate the ‘700 patent, Douglas obviously made capital outlays and strategic decisions based on the prior art Buyers actually identified *in this litigation*, and Buyers must live with the consequences of its litigation choices.

Finally, Buyers’ estimates as to how long this case would be stayed do not persuade the court that a stay is appropriate. While Buyers represents that reexamination could be complete in as little as six to eight months, statistics indicate that the average pendency of reexamination is 27.8 months, with a median pendency of 20.1 months. (Moser Decl. Ex. B (dkt. #606-2) 1.) Moreover, as Douglas points out, patent holders are entitled to review by the Patent Trial and Appeal Board (PTAB) and may also seek court review if dissatisfied with the PTAB decision. *See* 35 U.S.C. § 306. This action has already been pending for nearly five years. In the interest of “just, speedy, and inexpensive determination,” Fed. R. Civ. P. 1, the court declines to enter a stay that could delay this case’s resolution for years more.

For much the same reason, as well as those reasons set forth in its original order on the scope of remand (dkt. #589), the court will deny Buyers’ motions for reconsideration and leave to file a supplemental brief on invalidity. Indeed, three of the four factors Buyers identifies in *David v. Caterpillar, Inc.*, 324 F.3d 851 (7th Cir. 2003), are essentially subsumed within the four factors identified by this court in *Grice Engineering*. *Compare Grice Engineering*, 691 F. Supp. 2d at 920, *with David*, 324 F.3d at 857. As discussed above, all of these factors, including prejudice, weigh against Buyers. As for the fourth *David* factor (that

of bad faith or willfulness involved in not disclosing the evidence at an earlier date), Buyers avers that its failure to offer certain prior art until now was more an oversight than an act of bad faith or willfulness. This does not, however, overcome the three other *David* factors, especially when Buyers waited more than five years to offer prior art that was available to it since the outset of this lawsuit. The only arguable justification the court can find for allowing supplemental briefing at this stage is Buyers' suggestion that section 1 of its supplemental brief may assist the court by "consolidating the arguments still relevant to the claims that remain in the case" and citing to "cases issued subsequent to the previous trial in this matter that impact the [remaining] legal issues." (See Def.'s Mot. for Reconsideration (dkt. #595) 2.) As to the former, while the court appreciates Buyers' concern for the work both sides' summary judgment briefing leaves to the court, it is not unlike many similar cases and certainly does not justify another round of briefing and the attendant delays this may cause for a final resolution of this case. As to the latter, of the new cases cited, the court could discern only one that post-dates the first trial of this matter, and that case espouses such a basic proposition that it is of no particular importance in deciding the remaining issues in this case. Accordingly, the court will deny Buyers' motion to supplement its briefing on summary judgment in its entirety.¹

Buyers' final motion pending before the court seeks leave to file an additional brief on the scienter requirement of indirect infringement and willful infringement. (See dkt. #594). Buyers now appears to be arguing that its direct infringement liability is limited by the fact that it sells attachments to vehicles, not vehicles themselves. (See Proposed Supp.

¹ Buyers also asked to file a reply brief in support of this motion (dkt. #602), which the court will now deny as moot in light of its ruling above.

Br. (dkt. #594-1) 2.) In response, Douglas argues: (1) the motion is untimely, since Buyers did not bring this up as an issue that remained to be addressed back in October; (2) Douglas is no longer pursuing willful infringement; (3) indirect infringement is encompassed by the Federal Circuit's decision; and (4) Buyers is, in any event, wrong on the merits.

The court agrees with Douglas that any additional briefing is unnecessary with respect to willful infringement since that claim is no longer being pursued. More fundamentally, however, the court agrees that the Federal Circuit's decision is now law of this case. As Buyers points out, Douglas did not brief or argue indirect infringement on appeal. (Proposed Supp. Br. (dkt. #594-1) 3.) Nor did Buyers ever argue that "a vehicle having a frame member and a bumper" was a missing limitation for direct infringement purposes. With that limited record before it, and without inquiring into Buyers' state of mind, the Federal Circuit held that "the accused products meet every limitation of claim 45 as properly construed." *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1343 (Fed. Cir. 2013). Thus, the Federal Circuit found *direct infringement of claim 45*, which includes the limitation "a vehicle having a frame member and a bumper." U.S. Patent No. Re. 35,700 (filed Dec. 1, 1995), at 18:44. To find direct infringement, the Federal Circuit necessarily decided that this limitation was met as to Buyers' products. Given this ruling, now law of the case, a finding by this court of *no* direct infringement of the dependent claims on the basis of an ostensibly missing limitation would be wholly inconsistent with the Federal Circuit's finding as to the independent claim.

Furthermore, the court notes that the new Supreme Court case on which Buyers would now rely, *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. ___, 131 S. Ct. 2060 (2011), was decided on May 31, 2011. Nevertheless, Buyers *chose* not to raise this issue,

much less cite that case, in front of the Federal Circuit, even though *Global-Tech* had already issued by the time Buyers filed its notice of appeal (dkt. #564), as well as by the time Buyers petitioned the Federal Circuit for a rehearing in June of 2013 (*see* dkt. #601-2). In neither instance did Buyers bring this case to the Federal Circuit's attention.²

In the end, Buyers seems to be doing little more than seeking a way around the Federal Circuit's holding of infringement for the dependent claims, if not the independent claim 45. In light of Buyers' limited arguments to the contrary before the Federal Circuit, this court is in no position to reject its determination that the accused products meet all the limitations of claim 45, even in the context of examining claims that depend from claim 45. Moreover, allowing Buyers to defend its products on this new basis, is unlikely to change the outcome on the merits since, like claim 45, the dependent claims plainly contemplate, indeed require, use of the invention *on* a vehicle. Otherwise, the plow apparatus is nothing but a heavy, expensive and ungainly law decoration.

As a final housekeeping matter, the court notes that motions in limine and other pretrial disclosures are currently due this Friday, February 14, 2014. In the interest of narrowing the scope of the remaining issues the parties must consider, the court will strike that deadline and instead require motions in limine and other pretrial disclosures to be filed by Friday, March 14, 2014, with responses due on Friday, March 28, 2014. The court will endeavor to resolve the pending summary judgment in advance of the 14th. The other deadlines in this case remain in place, including the final pretrial conference to be held on April 3, 2014, and the trial date of April 14, 2014.

² To the extent Buyers did not believe it needed to do so, since Douglas argued only direct infringement on appeal, that was the result of Buyers' *own* decision to argue nothing more than the "connected to" limitation on appeal as a basis for non-infringement of claim 45.

ORDER

IT IS ORDERED that:

- 1) Defendant Buyers Products Company's Motions for Reconsideration and For Leave to File Supplemental Brief Regarding Invalidity (dkt. ##594, 595) are DENIED;
- 2) Defendant's Motion to Stay Pending Reexamination (dkt. #605) is DENIED;
- 3) Defendant's Motion for Leave to File a Supplemental Briefs (dkt. #602) is DENIED AS MOOT; and
- 4) Motions in Limine are now due on Friday, March 14, 2014, with responses due Friday, March 28, 2014; while all other dates remain the same.

Entered this 13th day of February, 2013.

BY THE COURT:

/s/

WILLIAM M. CONLEY
District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

v.

BUYERS PRODUCTS COMPANY,

Defendant.

OPINION & ORDER

09-cv-261-wmc

In what remains of this action for patent infringement on remand from the Federal Circuit, plaintiff Douglas Dynamics, LLC alleges that defendant Buyers Products Company (“Buyers”) has infringed its patent, U.S. Patent No. Re. 35,700, for a “removable snowplow assembly with pivotable lift stand.” This court previously found non-infringement of claim 45, and perforce all the asserted claims depending from it (dkt. #332); on appeal, the Federal Circuit reversed (dkt. #568-1). *See Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336 (Fed. Cir. 2013). Accordingly, the court now takes up previously undecided cross-motions for summary judgment as to (1) claim 45’s validity, and (2) the infringement and validity of dependent claims 47, 48, 49 and 51. (Dkt. #589.) For the reasons stated below, the court will grant Douglas’s motions for summary judgment, and deny Buyers’.

BACKGROUND

Defendant Buyers manufactures and sells SnowDogg snowplow assemblies in six different series, all of which use the same mounting mechanism and lighting harness as accurately set forth in Buyers’ own U.S. Patent No. 7,562,718. Plaintiff Douglas is also in

the business of manufacturing and selling snowplows and is the assignee of the single patent remaining in this suit.

Originally, Douglas brought claims for infringement against Buyers on five different patents. The parties filed cross-motions for summary judgment both on infringement and on invalidity. (See *dk. ##120, 158, 166, 170.*) Based on those submissions, this court held that claim 45 of the ‘700 patent, as well as asserted dependent claims 47, 48, 49 and 51, were not infringed. (See Oct. 1, 2010 Opinion & Order (*dk. #332*) 47.) Specifically, the court noted that claim 45 requires that the “A-frame and the support frame are connected to the mounting frame.” (‘700 patent, 18:51-52.)¹ The court found that this limitation required both the A-frame and support frame to be *directly* connected to the mounting frame, whereas Buyers’ products featured an indirect connection between the A-frame and the mounting frame. (Oct. 1, 2010 Opinion & Order (*dk. #332*) 46.) Accordingly, the court entered summary judgment of non-infringement on claim 45 and the dependent claims, and dismissed Buyers’ counterclaims of invalidity without prejudice with respect to those claims. (See Oct. 6, 2010 Opinion & Order (*dk. #445*) 16.)

On appeal, the Federal Circuit reversed this court’s grant of summary judgment of non-infringement. It held that the element “connected to” encompassed both direct and indirect connections. See *Douglas Dynamics*, 717 F.3d at 1343. Because Buyers presented no other non-infringement arguments with respect to claim 45, the Federal Circuit “[found] the accused products meet every limitation of claim 45 as properly construed.” *Id.* Therefore, it

¹ For ease of citation, and in keeping with general practice, the number preceding the colon will denote the patent’s column number, while the number following the colon refers to the line number or numbers cited.

reversed, directing this court “to enter summary judgment of infringement in favor of Douglas.” *Id.*

With infringement of claim 45 entirely resolved by the Federal Circuit’s mandate, the court now takes up the question of that claim’s validity, which it previously declined to resolve. In addition, because the only basis for the previous finding of non-infringement of the dependent claims was the non-infringement of the underlying *independent* claim, the court must now consider infringement and validity with respect to claims 47, 48, 49 and 51.

Claim 45 of the ‘700 patent reads:

A vehicle mounted snowplow blade assembly comprising

a vehicle having a frame member and a bumper,

a mounting frame fixed to the frame member and located generally behind the bumper,

a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,

a support frame connected to the A-frame, and

wherein the A-frame and the support frame are connected to the mounting frame for pivotable movement of the A-frame about a generally horizontally extending pivot axis and for affording removal of the A-frame and the support frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

(‘700 patent, 18:42-56.)

Claim 47 depends from claim 45 and reads:

A vehicle mounted snowplow blade assembly as set forth in claim 45

wherein said support frame, when connected to said mounting frame, includes an extension in front of and above said bumper, and

including an actuator connected to said support frame and said A-frame to pivot said A-frame about said pivot axis.

(‘700 patent, 19:13-20.)

Claim 48 also depends from claim 45 and reads:

A vehicle mounted snowplow blade assembly as set forth in claim 45 including a headlamp connected to said support frame and removable with said A-frame and said support frame.

(‘700 patent, 19:21-24.)

Claim 49 reads:

A vehicle mounted snowplow blade assembly as set forth in claim 45 including a support stand connected to said snowplow blade assembly and extending therefrom for ground engagement to support said snowplow blade assembly when detached from said vehicle, said support stand connected to said snowplow blade assembly for movement to store said support stand when said snowplow blade assembly is attached to said vehicle.

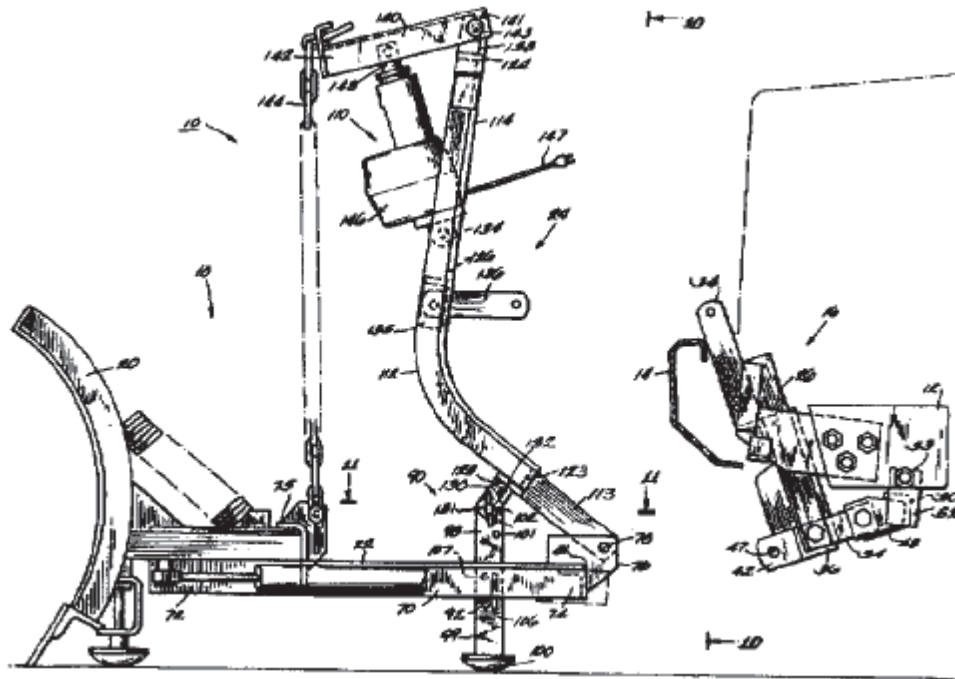
(‘700 patent, 19:25-32.)

Finally, claim 51 reads:

A vehicle mounted snowplow blade assembly as set forth in claim 45 wherein the snowplow blade assembly includes a support stand for supporting the A-frame in a generally horizontal position and, when the A-frame is not connected to the mounting frame, for selectively adjusting the vertical position of the snowplow blade assembly.

(‘700 patent, 19:41-20:4.)

Figure 1 of the ‘700 patent, directed toward a “removable snowplow assembly with pivotable lift stand,” is pictured below:



OPINION

Under 35 U.S.C. § 282, issued patents are presumed valid. “[A] moving party seeking to invalidate a patent at summary judgment must submit such clear and convincing evidence of facts underlying invalidity that no reasonable jury could find otherwise.” *TriMed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1340 (Fed. Cir. 2010) (internal quotation marks omitted). In contrast, summary judgment of no invalidity is appropriate when no reasonable jury could find by clear and convincing evidence that the claims are invalid. *See Central Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Solutions, P.C.*, 482 F.3d 1347, 1357-58 (Fed. Cir. 2007) (affirming district court’s grant of summary judgment of no invalidity when ACS “failed to meet its burden of coming forward with evidence to create a genuine dispute of fact” on invalidity issue).

Likewise, determining whether a particular device infringes a properly construed claim is a question of fact. *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 149 F.3d 1309, 1315 (Fed. Cir. 1998). On summary judgment, “the issue is whether there is no genuine issue of material fact regarding infringement.” *In re Gabapentin Patent Litigation*, 503 F.3d 1254, 1259 (Fed. Cir. 2007).

Because patents are presumed valid, “the burden of persuasion to the contrary is and remains on the party asserting invalidity” -- in this case, Buyers. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1303 (Fed. Cir. 2008). In contrast, as plaintiff, Douglas Dynamics bears the burden of proving infringement by a preponderance of the evidence. *Laitram Corp. v. Rexnord Inc.*, 939 F.2d 1533, 1535 (Fed. Cir. 1991).

I. Claim 45

A. Indefiniteness

Patent law requires that claims “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112 ¶ 2 (2006). “To satisfy this requirement, the claim, read in light of the specification, must apprise those skilled in the art of the scope of the claim.” *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1340 (Fed. Cir. 2005). “Claim definiteness is analyzed ‘not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art.’” *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006).

Indefiniteness is a question of law that turns on claims construction. *Exxon Research & Engineering Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001). The applicable

standard does not require “that claims be plain on their face in order to avoid condemnation for indefiniteness.” *Id.* at 1375. Rather, the Federal Circuit has explained:

If a claim is insolubly ambiguous, and no narrowing construction can properly be adopted, we have held the claim indefinite. If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds.

Id. Under this standard, a claim is not indefinite “merely because it poses a difficult issue of claim construction.” *Bancorp Servs., L.L.C. v. Hartford Life Ins. co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004). A court should invalidate a claim as indefinite “only if reasonable efforts at claim construction prove futile.” *Exxon Research*, 265 F.3d at 1375.

Buyers’ only argument for invalidity under § 112 ¶ 2 is that the term “support frame” renders claim 45 indefinite. Buyers makes much of the fact that: (1) the term “support frame” is found for the first time in claim 45, and appears nowhere else in the patent (with the exception of the claims that depend from claim 45); and (2) even one of the inventors listed on the ‘700 patent, Gary E. Watson, was unable to define “support frame” during his deposition. (*See* Tucker Decl. Ex. M (dkt. #168-113) 277:20-278:14.) Buyers also relies on the testimony of Douglas’s expert, Dr. Garriss, as proof that one of ordinary skill in the art would not be able to ascertain a *specific* meaning for “support frame”:

Q: What’s the difference [between a lift frame and a support frame]?

A: Well, the – in the context of the ‘700 patent, the support frame is more broad than the lift frame. The lift frame is defined as producing a very specific function, you know, basically the lift frame is the – is the frame to which the lifting mechanism for the plow transmits its load, whereas the support frame is a much more generic frame. It includes – it could

include the lift frame, it could include a light supporting frame. It could – it could include maybe a flag – you know, a flag support – it could support anything. It’s a very broad concept, a support frame, as opposed to a lift frame. A lift frame has a specific function. A support frame has a more general function.

Q: So the lift frame’s specific function is to lift, right?

A: Correct.

Q: Okay. And support frame has a much more nebulous function?

Q: I wouldn’t say nebulous, but I would say there’s a lot of things that you might imagine that it could support. You know, it could support lights, it could support flags, it could support a lot of things. It could support a little child seat, you know.

(Tucker Decl. Ex. N (dkt. #168-14), 47:23-48:25.)

In large part, the evidence upon which Buyers relies is of little relevance. For example, Watson’s inability to define “support frame” when asked during his deposition is of limited significance to the question of indefiniteness, since indefiniteness is a matter of claims construction and “[i]t is particularly inappropriate to consider inventor testimony obtained in the context of litigation in assessing validity under section 112, paragraph 2, in view of the absence of probative value of such testimony.” *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379 (Fed. Cir. 2000) (holding that a district court erred in using the inventor’s deposition testimony to invalidate patent claims under § 112, ¶ 2). Similarly, Dr. Garriss’s testimony simply establishes that the term “support frame” is broad; it is a frame that can support a number of components, rather than being limited to supporting the load of a plow’s lifting mechanism as would a “lift frame.” “Merely claiming broadly does not render a claim insolubly ambiguous, nor does it prevent the public from understanding the

scope of the patent.” *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 587 F.3d 1339, 1352 (Fed. Cir. 2009).

The only argument Buyers advances that has even arguable merit is that the term “support frame” appears nowhere else in the patent, meaning that the context of the written description is less helpful than it would otherwise be in construing this term. Still, this does not render the term insolubly ambiguous. On the contrary, when read in the context of the patent as a whole, Douglas’s proposed construction -- that a “support frame” is simply a broader category of “lift frame” that is not limited to supporting lift load but can also support other components of the blade assembly -- appears both reasonably certain and accurate. The lift frame and the support frame appear to play largely the same role with respect to the A-frame in claims 1 and 45. (*Compare* ‘700 patent, 13:27-42, *with* ‘700 patent, 18:42-56.) Furthermore, in the claims that depend from claim 45, the support frame is described as connected to a headlamp in claim 48, supporting Douglas’s contention that the support frame can support various components beyond lift load. Thus, the court declines to grant Buyers summary judgment on indefiniteness grounds.

B. Anticipation

“A patent is invalid for anticipation if a *single* prior art reference discloses each and every limitation of the claimed invention.” *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (emphasis added). That which would literally infringe if produced after patenting anticipates if produced before. *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378 (Fed. Cir. 2001). Each limitation may be found either expressly or inherently in the prior art reference, since inherency places matter in the public domain

as well as express disclosure. *Schering Corp.*, 339 F.3d at 1379. While “the teaching in the prior reference need not be *ipsissimis verbis*,” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984), but “[t]he elements must be arranged or combined in the same way as in the claim.” *Whitserve, LLC v. Comp. Packages, Inc.*, 694 F.3d 10, 21 (Fed. Cir. 2012) (quoting *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (internal quotation marks omitted)).

Finally, the court notes that when determining the validity of the claims of a patent, each claim must be considered separately. *See Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1379-80 (Fed. Cir. 2002). Every claim, even a claim in dependent form, is presumed valid independently of the validity of other claims. *Id.*

Buyers argues that Claim 45 is invalid as anticipated by U.S. Patent No. 4,187,624 (“the ‘624 patent”). Douglas does not dispute that the ‘624 patent includes “a vehicle having a frame member and a bumper,” a “mounting frame fixed to the frame member and located generally behind the bumper,” and a “snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,” but argues that the ‘624 patent does not disclose the “support frame” element of claim 45. (Pl.’s Resp. to DPFOF (dkt. #195) ¶¶ 9, 11, 13.)² In response, Buyers points to the “bell crank assembly” in the ‘624 patent as disclosing the “support frame connected to the A-frame” limitation of the ‘700 patent.

The bell crank assembly is labeled 85 in Figure 1 of the ‘624 patent:

² Douglas’s brief also refers to the “mounting means for selectively connecting the A-frame to the mounting frame for pivotable movement about a generally horizontally extending pivot axis and for affording removal of the A-frame and the lift frame from the mounting frame as a unit so as to leave the [mount] mounting frame on the vehicle and behind the bumper” as being a missing limitation “required by all asserted claims.” (Pl.’s Opp’n (dkt. #194) 5.) Claim 45 does not claim the “mounting means” at issue, however. Rather, it claims a structure “*wherein the A-frame and the support frame are connected to the mounting frame*” for the required pivotable movement. (See Pl.’s Resp. to PFOF (dkt. #195) ¶ 76 (noting that “claim 45 does not require the ‘mounting means’ of claim 1”).)

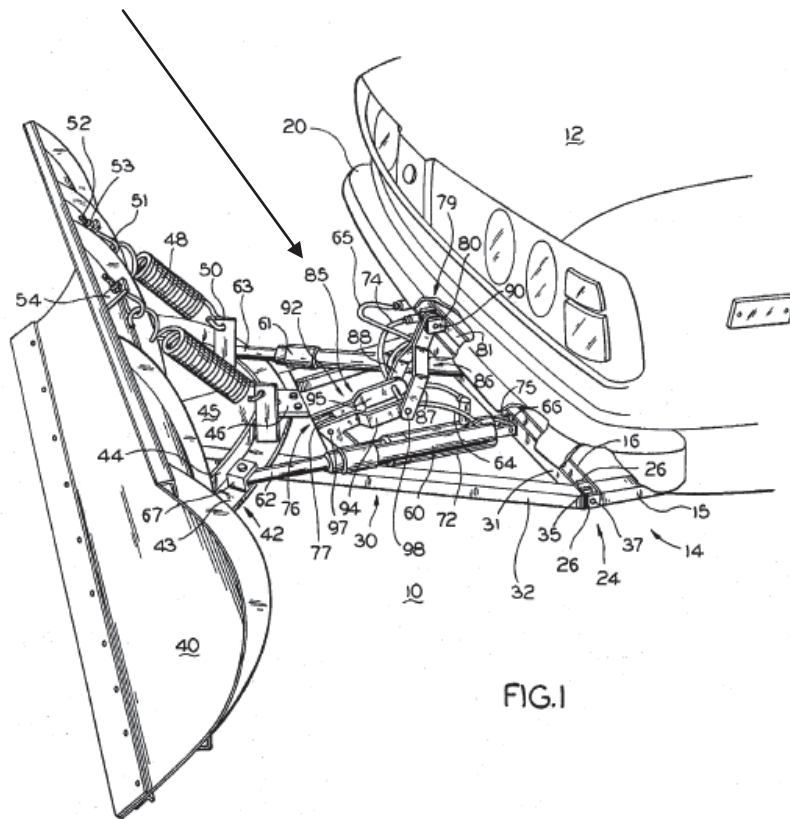
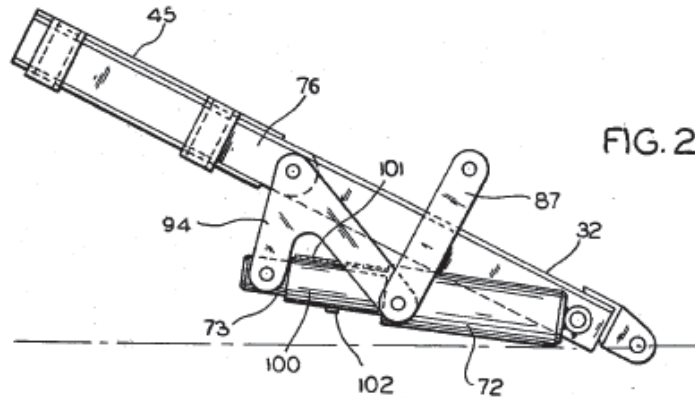


FIG. 1

The written description of the bell crank assembly includes “a first generally Y-shaped link member 86 which includes symmetrical side plates 87 and 88.” (‘624 patent, 5:29-31.) Plates 87 and 88 are welded to one another at the top of the Y-shaped link and fit between the plates 80 of bracket 79, which is located behind the vehicle’s bumper. (See ‘624 patent, 5:18-20, 31-34.) The bell crank assembly also includes a second link, link 92, which is made of a pair of L-shaped side members, 94 and 95. Those members are pivotally mounted to bracket 76 and to link 86. The shorter portions of members 94 and 95 are pivotally coupled between bracket 76 and the end of piston rod 73. (See ‘624 patent, 5:38-47.)

A side view of a portion of the bell crank assembly, shown in conjunction with the piston rod, is shown in Figure 2 of the ‘624 patent:



Through this assembly, extension of piston rod 73 pushes link 92 (made up of side members 94 and 95) forward, which causes the snowplow blade 40 and support 30 to tilt upward. ('624 patent, 5:47-51.)

As an initial matter, Douglas argues that the bell crank assembly does not constitute a “frame” as that term is ordinarily defined. Recognizing that “dictionary definitions may establish a claim term’s ordinary meaning,” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002), Douglas proffers two dictionary definitions. Douglas relies on Webster’s Third New International Dictionary, which defines “frame” as “a basic structural unit onto or into which other constituents of a whole are fitted, to which they attach, or with which they are integrated,” and the Encarta English Dictionary (North American Edition), which defines “frame” as “supporting structure: an underlying or supporting structure that consists of solid parts such as beams or struts with spaces between them and has something built around or on top of it.” (See Pl.’s Mot. Summ. J. (dkt. #121) 14 n.3; Garriss Decl. Exs. C2, C3 (dkt. ##124-21, -22).) In contrast, Douglas argues, the bell crank assembly of the ‘624 Patent: (1) is described not as a “frame” but as an “assembly”; and (2)

is not a rigid structural unit that supports other parts but is instead an “assembly of movable linkages.”

The court does not find either distinction particularly persuasive. The mere fact that the bell crank assembly is *described* as an “assembly” rather than a “frame” is essentially irrelevant, since, as previously noted, “the reference need not satisfy an *ipsissimis verbis* test.” *Whitserve, LLC*, 694 F.3d at 21 (quoting *In re Gleave*, 560 F.3d at 1334)). Likewise, Douglas’s focus on dictionary definitions seeks to answer the wrong question.³ The court must determine not whether the bell crank assembly is a “frame” based on a dictionary definition, but rather whether it is a “*support* frame,” a limitation properly construed based on the entire ‘700 patent. Furthermore, the court must determine, assuming the ‘624 patent discloses a “support frame,” whether it is “arranged or combined in the same way” as the support frame of the ‘700 patent. *See Whitserve, LLC*, 694 F.3d at 21.

With respect to these more important questions, Buyers’ invalidity argument breaks down. Though Buyers glosses over the point, a lift frame (and thus, the comparable support frame) does not merely support a plow’s lift load, it supports other components as well. To accomplish this function, a lift frame remains *fixed to the vehicle* during plowing:

While the lift frame remains pivotable relative to the A-frame, the lift frame, during plowing, is fixed to the vehicle so that lights and other accessories which may be mounted on the lift frame remain fixed relative to the vehicle during plowing and during stacking of snow.

(‘700 patent, 3:24-29.) The detailed description of the drawings in the ‘700 patent confirms this:

³ It is also not clear that the bell crank assembly of the ‘624 patent *does* fall outside the dictionary definitions Douglas offers.

In general, and as more specifically discussed below, when the lift frame assembly 24 is fixed to one of the mounting frame assemblies 16, 56, the lifting frame assembly supports the lights 149 in fixed position relative to the vehicle and affords the raising and lowering of the snowplow assembly 18.

(‘700 patent, 8:63-9:1.)

The patent emphasizes the importance of this feature yet again in describing the lighting fixture in relation to the lift frame assembly:

As mentioned above, when the lift frame assembly 24 is mounted on one of the mounting frame assemblies 16, 56, the lighting fixture 160 is fixed to the vehicle in a position over the snowplow blade 20. Such positioning and support of the lighting fixture 160 provides a lighting fixture 160 that is operational during plowing of snow and that is removable from the vehicle as a unit with the snow plow assembly 18. It is operational in the sense that the lights are above the plow in both its upper position (travel/stacking) and lower position (plowing) and thus the plow blade does not interfere with the light rays. Also, the lights being fixed relative to the vehicle, their orientation is not affected by movement of the plow blade.

(‘700 patent, 10:44-56.)

This same requirement applies with equal or greater force to the support frame, which may support any number of components, including lights (as confirmed by dependent claim 48). Thus, the court concludes that the plain and ordinary meaning of “support frame,” to a person of ordinary skill in the art, would require it to remain in a fixed position relative to the vehicle, to “support” various assembly components

In contrast, the bell crank assembly of the ‘624 patent does not -- indeed, cannot -- play such a role. As discussed above, the bell crank assembly of the ‘624 patent is *not* fixed to the vehicle. In fact, it functions by *moving* relative to the vehicle: the hydraulic cylinder pushes the L-shaped member of the bell crank assembly forward, which in turn pushes the

blade upward to shovel and stack snow. Furthermore, the drawings in the ‘624 patent show that the bell crank assembly is not located above the blade. (See ‘624 patent, Figure 1.) This means that it cannot support components like lights or spray canopies, since those structures would constantly be shifting as the plow blade moved vertically and indeed would be blocked by the blade itself. (See Garriss Decl. (dkt. #124) ¶ 103.)

Given these crucial differences, the court cannot say that Buyers has demonstrated by clear and convincing evidence that the ‘624 patent discloses the “support frame” of the ‘700 patent. Nor does the expert report of Dr. Joseph M. Prahll rescue Buyers’ argument: it is wholly conclusory in equating the “bell crank assembly” to a “support frame” and “lift frame.” (See May 5, 2010 Prahll Expert Report (dkt. #124-15) ¶¶ 107, 159.) Buyers does not even address the fact that the bell crank assembly functions by moving relative to the vehicle. Thus, Buyers has failed to meet its burden, and its motion for summary judgment of invalidity will be denied as to claim 45.

This does not conclude the court’s analysis, however. Douglas has also moved for summary judgment of *no* invalidity, meaning the court must determine whether Buyers has produced enough evidence to allow a reasonable jury to find that claim 45 is invalid. In the context of cross-motions for summary judgment on patent validity, the Federal Circuit has cautioned district courts to remember that “the denial of a party’s motion for summary judgment of invalidity is not sufficient to justify a reciprocal grant of summary judgment of no invalidity to the other party.” *Mikkelsen Graphic Eng’g, Inc. v. Zund Am., Inc.*, 541 F. App’x 964, 973 (Fed. Cir. 2013); *see also Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1331-32 (Fed. Cir. 2009) (“[A] district court cannot rely on its assessment of one party’s motion for summary judgment of invalidity when evaluating the other party’s motion for

summary judgment of no invalidity.”). Accordingly, the court turns to Buyers’ opposition to Douglas’s motion.

For purposes of claim 45, Buyers has relied entirely on the same argument it advanced in support of its own motion: claim 45 is anticipated by the ‘624 patent. (*See* Prahl Invalidity Report (dkt. #168-12) ¶¶ 156-59.) Yet no reasonable jury could find that the ‘624 patent discloses a “support frame” as used on the context of ‘700 patent for reasons already discussed above. As a result, no reasonable jury could find that the ‘624 patent anticipates claim 45, because it does not disclose each and every element of that claim, arranged or combined in the same way.

Summary judgment is the “‘put up or shut up’ moment in a lawsuit, when a party must show what evidence it has that would convince a trier of fact to accept its version of events.” *Johnson v. Cambridge Indus., Inc.*, 325 F.3d 892, 901 (7th Cir. 2003) (quoting *Schacht v. Wis. Dep’t of Corr.*, 175 F.3d 497, 504 (7th Cir. 1999)). By moving for summary judgment of no invalidity, Douglas placed Buyers on notice that it must come forward with all of its evidence. Nevertheless, Buyers relied solely on its theory that the ‘624 patent anticipated claim 45. Because the court has rejected that argument, and because Buyers has put forth no other evidence of anticipation (or any other basis for invalidity), the court will grant Douglas’s motion for summary judgment of no invalidity.

II. The Dependent Claims

A. Infringement

As noted above, “[i]nfringement, whether literal or under the doctrine of equivalents, is a question of fact.” *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1129-30 (Fed. Cir. 2011) (citing *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998)).

Summary judgment may nevertheless be appropriate “when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.” *U.S. Philips Corp. v. Iwasaki Elec. Co.*, 505 F.3d 1371, 1374-75 (Fed. Cir. 2007) (quoting *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1364 (Fed. Cir. 2005)). An infringement analysis involves two steps. First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process. *Absolute Software, Inc.*, 659 F.3d at 1129. Claims construction in this case is complete; the court need only consider the second step of the infringement analysis.

“Literal infringement requires that each and every limitation set forth in a claim appear in an accused product.” *V-Formation, Inc. v. Benetton Grp. SpA*, 401 F.3d 1307, 1312 (Fed. Cir. 2005). “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

Both parties moved for summary judgment on infringement grounds. (See dkt. ## 158, 170.) Buyers’ sole argument with regard to dependent claims 47, 48, 49 and 51 comes down to a single, flawed premise: because claim 45 is not itself infringed, neither can the *dependent* claims be infringed, since all of claim 45’s limitations are incorporated into each of the dependent claims, as required by 35 U.S.C. § 112, ¶ 4. (See Def.’s Br. Supp. Mot. Summ. J. Non-Infringement (dkt. #171) 47; Prah Noninfringement Chart 2 (dkt. #175-10) 11-13.) The fatal flaw is that the Federal Circuit already found that Buyers’ products *do* meet all of the limitations of claim 45. Accordingly, Buyers’ motion for summary judgment of non-infringement is denied.

Next, Douglas moves for summary judgment of infringement on all the asserted dependent claims, referring the court to its expert report on infringement. (*See* Pl.’s Br. Supp. Mot. Summ. J. Infringement (dkt. #159) 38.) Mindful of the Federal Circuit’s mandate, the court does not revisit whether Buyers’ products contain each of the claim 45 limitations, but instead focuses its analysis on the *additional* limitations that each dependent claim features to determine if Buyers’ products infringe those dependent claims as a matter of law.

i. Claim 47

As noted above, claim 47 depends from claim 45 and adds two limitations: the “support frame, when connected to said mounting frame, includes an extension in front of and above said bumper”; and an “actuator connected to said support frame and said A-frame to pivot said A-frame about said pivot axis.” (‘700 patent, 19:14-21.) Douglas’s expert Charles Garriss will opine that Buyers’ snowplow blade assemblies include the first limitation, pointing specifically to Figure 1 of Buyers’ ‘718 patent:

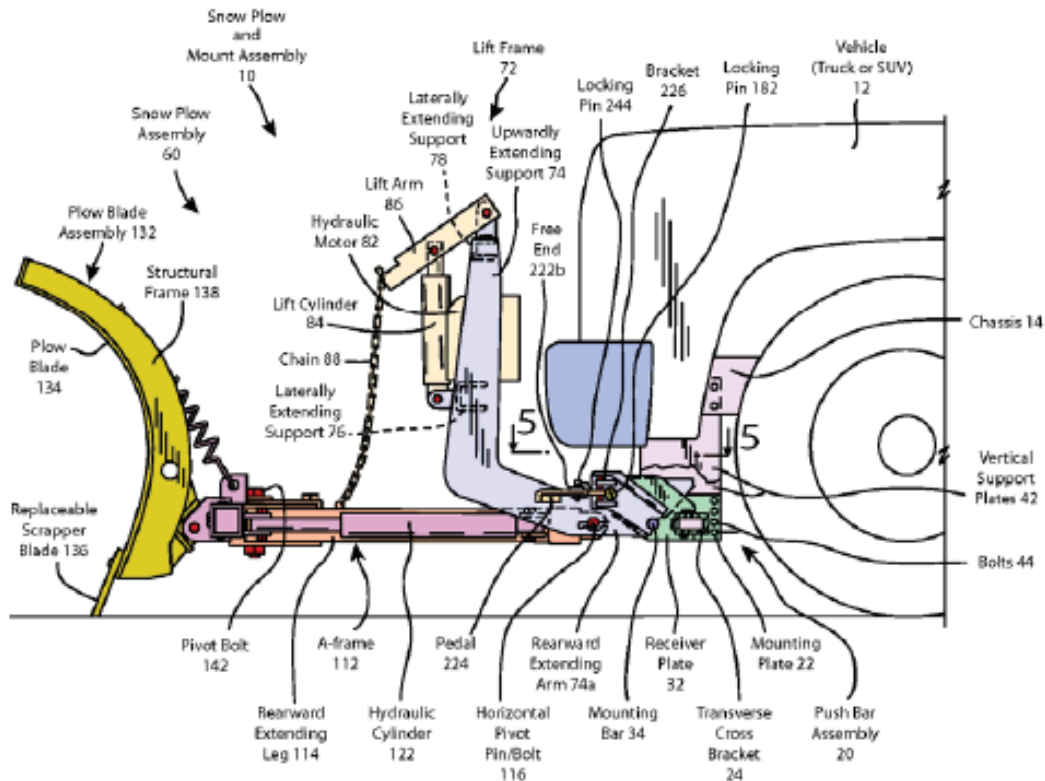
US Patent No. 7,562,718

Moorman Et. Al

July 21, 2009

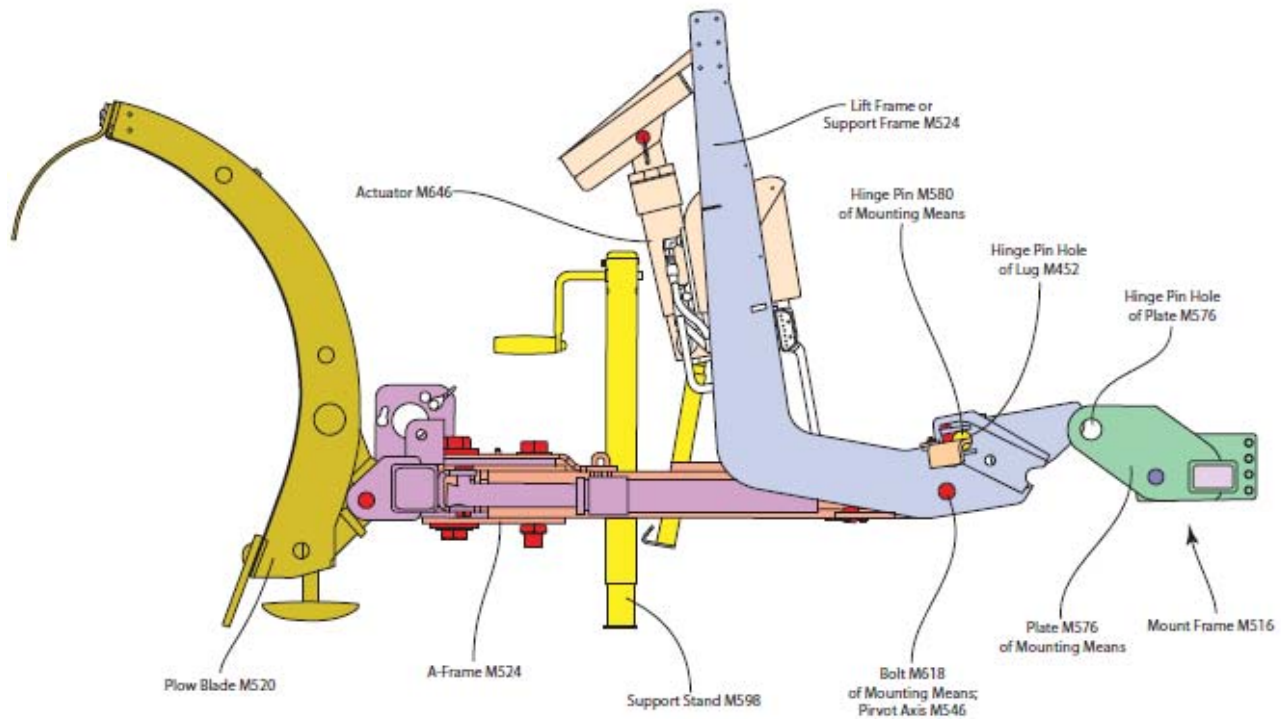
Fig. 1 (Modified)

(DD 020733)



(Garris Report Vol. 3 (dkt. #128) ¶ 60.) The “upwardly extending support,” labeled 74 in the modified figure, is an “extension in front of and above” the vehicle bumper. Buyers does not dispute that its products literally contain this element. (*See* Def.’s Resp. to PPFOF (dkt. #193) ¶ 154.)

Claim 47 also includes another element: “an actuator connected to said support frame and said A-frame to pivot said A-frame about said pivot axis.” The Federal Circuit found Buyers’ products allow for this pivotable movement of the A-frame around a generally horizontally extending pivot axis, since that requirement is contained within infringed claim 45. It is also readily apparent that Buyers’ products include an actuator, as shown in Garris’ demonstrative exhibits 8a through 10b:

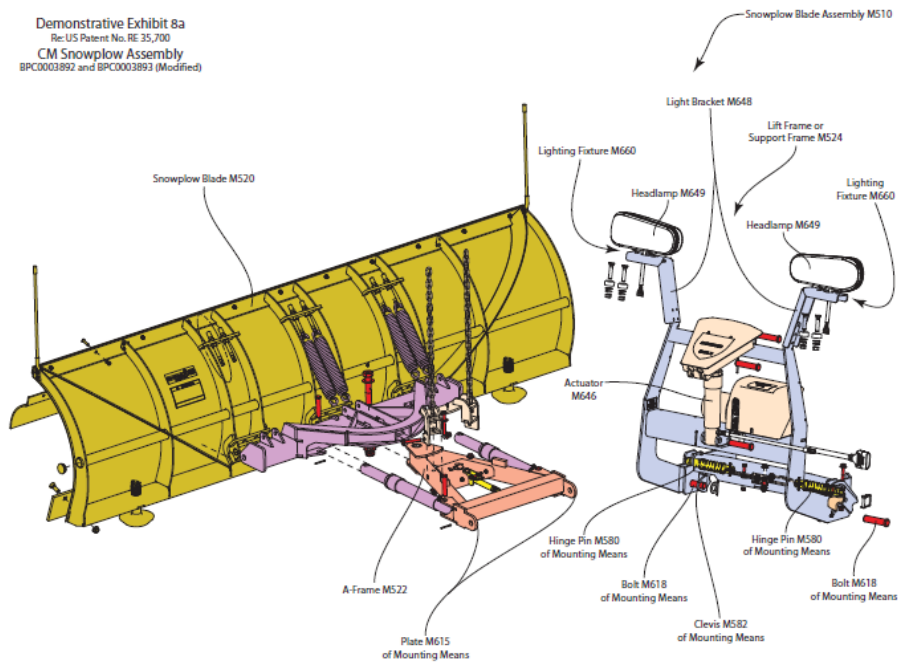


(Dkt. #126-4) (actuator labeled M646). Given the Federal Circuit’s construction of “connected to” as encompassing both direct and indirect connections, it is also clear that the actuator is connected to the support frame (blue), and to the A-frame (pink) via the support frame, in order to accomplish the pivotal movement described in claim 45. Accordingly, Douglas is entitled to summary judgment of infringement on claim 47.

ii. Claim 48

Claim 48 also depends from claim 45 and adds only the additional limitation of “a headlamp connected to said support frame and removable with said A-frame and said support frame.” (‘700 patent, 19:23-25.) As Douglas’s expert, Charles Garriss, points out, Buyers’ CM, VX, MD and HD/EX Snowplow Assemblies include headlamps (labeled M649 on Garriss’ diagrams) that are connected to two light brackets (M648), which are in turn

connected to the support frame (M524). Pictured below, as an example, is Garriss' diagram of the CM Snowplow Assembly:



(Demonstrative Ex. 8a (dkt. #126-4) 1).

As Garriss explains, the headlamps are indirectly connected to the support frame by means of the light brackets. The Federal Circuit has confirmed that the plain language of “connected to” encompasses such indirect connections. *See Douglas Dynamics, LLC*, 717 F.3d at 1342. Furthermore, the Federal Circuit has already found that Buyers’ products allow for the removal of the A-frame and the support frame as a unit by finding infringement of claim 45.⁴ Buyers points to no evidence to the contrary in response. Indeed, Buyers concedes in its responses to Douglas’s proposed findings of fact that the “specific features of claim 48” are present in its products. (*See* Def.’s Resp. to PPFOF (dkt.

⁴ “Since the headlamps (M649) are connected to the support frame (M524), the headlamps (M649) are removable with the A-frame (M522) and the support frame (M524).” (Garriss Decl. (dkt. #128) ¶ 62.)

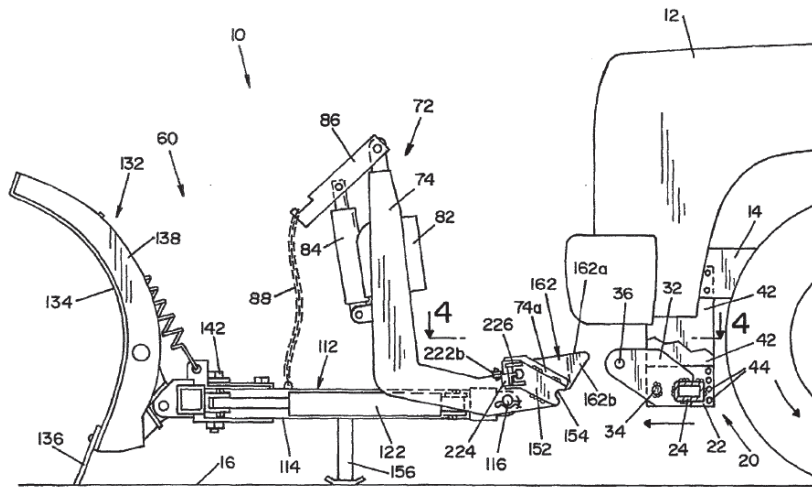
#193) ¶ 155.) Therefore, no reasonable jury could find for Buyers, and claim 48 is infringed as a matter of law.

iii. Claim 49

Claim 49 depends from claim 45 and adds the following additional limitation:

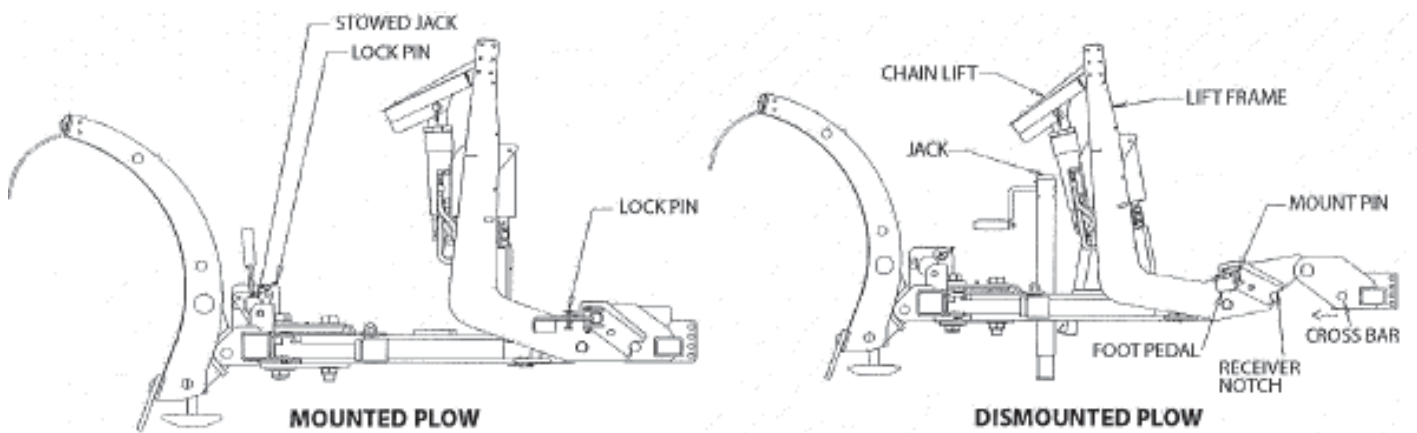
[I]ncluding a support stand connected to said snowplow blade assembly and extending therefrom for ground engagement to support said snowplow blade assembly when detached from said vehicle, said support stand connected to said snowplow blade assembly for movement to store said support stand when said snowplow blade assembly is attached to said vehicle.

(‘700 patent, 19:27-33.) Garriss’ expert report points to Buyers’ ‘718 patent, in which Figure 3 shows the snowplow assembly 10 in a detached state and set on a road bed surface 16. The support stand is labeled 156:



(Garris Ex. App. C Ex. 7 (dkt. #126-30) Figure 3.) Garris' diagrams of the Buyers products feature this support leg as well. (*See* Demonstrative Exs. 8a-10b (dkt. #126-4).)

Garris then points to the HD/EX owner's manual, which shows how the plows contain a "jack" from which the support leg extends in the unmounted state. The instructions indicate that after mounting, the user should "retract the jack enough to allow its removal," "rotate the jack to disengage from the jack mount plate" and "stow the jack on the sector mounted stow plate."



(Garris Ex. App. C Ex. 1 (dkt. #126-24).)

Therefore, Garris opines that not only is the support leg (jack) connected to the assembly so as to provide "ground engagement" in the unmounted state, but it is also connected to the assembly for movement to store the jack on the "sector mounted stow plate" when the assembly is attached to a vehicle. Again, Buyers presents no evidence to contradict this opinion, conceding that the SnowDogg snowplow assembly provides "the specific features of claim 49." (Def.'s Resp. to PPFOF (dkt. #193) ¶ 156). Douglas is therefore entitled to summary judgment of infringement on this dependent claim as well.

iv. Claim 51

Finally, claim 51 depends from claim 45 and adds the following additional limitation:

[W]herein the snowplow blade assembly includes a support stand for supporting the A-frame in a generally horizontal position and, when the A-frame is not connected to the mounting frame, for selectively adjusting the vertical position of the snowplow blade assembly.

(‘700 patent, 19:42-20:4.)

In Buyers’ products, Garris’s expert report notes that the support stand (jack) of the assembly is connected to the assembly through the jack plate when the assembly is detached and engages with the ground to support the A-frame in a generally horizontal position (as in the “Dismounted Plow” diagram above). He also notes that in the detached position -- that is, “when the A-frame is not connected to the mounting frame” -- per the instructions, the jack may be extended or retracted to selectively adjust the vertical position of the assembly. (Garris Ex. App. C Ex. 1 (dkt. #126-24) BPC0003869.) Buyers presents no evidence to combat Garris’ testimony and concedes that its SnowDogg snowplow assembly contains “the specific features of claim 51” (Def.’s Resp. to PPFOF (dkt. #193) ¶ 157). Accordingly, Douglas is entitled to summary judgment of infringement of claim 51.

B. Invalidity Based on Obviousness

Having found that dependent claims 47, 48, 49 and 51 are infringed, the court next considers whether those claims are valid. Buyers contends that all the dependent claims are invalid as obvious.⁵ While sympathetic to this contention on an abstract basis, given that the claims cover such seemingly rudimentary features as adding lights and a support stand, a claim is deemed legally invalid for obviousness if the differences between the subject matter

⁵ Buyers has also asserted that all the dependent claims are invalid as indefinite “for the same reasons as claim 45.” (See Def.’s Br. Opp’n Summ. J. & Br. Supp. Summ. J. Invalidity (dkt. #167) 29, 30, 31, 32.) The court has already rejected that argument, *see* discussion, *supra*, Section I.A., and need not consider it further.

sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. 35 U.S.C. § 103(a). More importantly for purposes of this analysis, “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Rather, in evaluating such combinations, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.*

The Federal Circuit has frequently employed the teaching, suggestion or motivation (“TSM”) test in assessing obviousness, asking whether there is evidence of a teaching, suggestion or motivation to combine known elements from the prior art. Still, the TSM test, while a “helpful insight,” is not a “rigid and mandatory formula[.]” *Id.* at 418-19. The court must keep in mind that “[a] person of ordinary skill in the art is also a person of ordinary creativity, not an automaton,” *id.* at 421, and may “take account of the inferences and creative steps that a person of ordinary skill in the art would employ” in evaluating obviousness, *id.* at 418. A “combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 416.

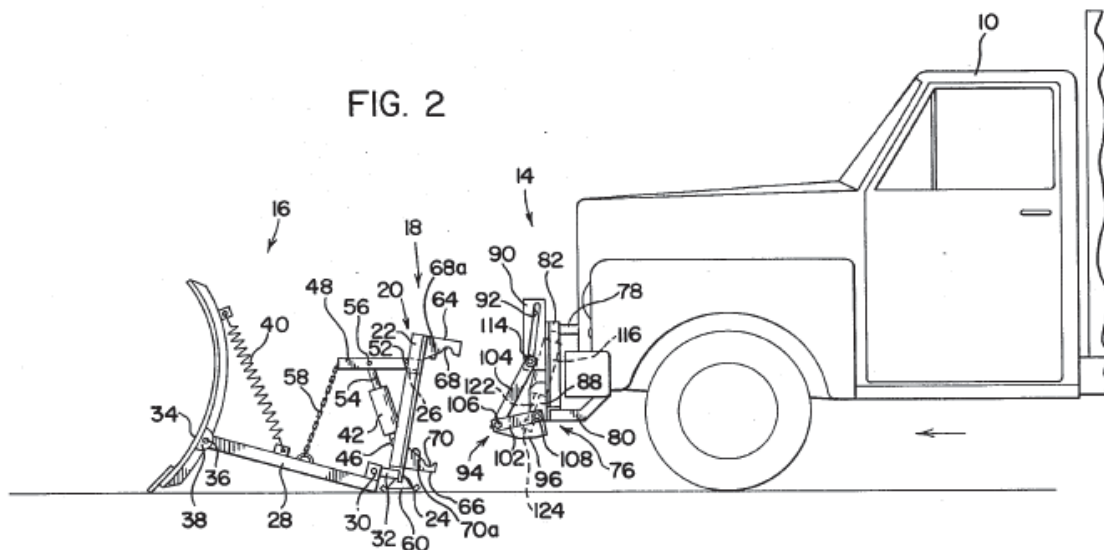
As an initial matter, Buyers’ failure to establish the invalidity of independent claim 45 is essentially fatal to its obviousness arguments as to dependent claims 47, 48, 49 and 51. *See Callaway Golf Co. v. Acushnet Co.*, 576 F.3d 1331, 1344 (Fed. Cir. 2009) (“A broader independent claim cannot be nonobvious where a dependent claim stemming from that independent claim is invalid for obviousness.”) (citing *Ormco Corp. v. Align Tech., Inc.*, 498

F.3d 1307, 1319 (Fed. Cir. 2007)). The Federal Circuit decision in *Callaway* seems to dictate that finding claims 47, 48, 49 or 51 invalid as obvious would compel the conclusion that claim 45 is likewise obvious -- but Buyers failed entirely to argue or present *any* evidence that claim 45 was obvious, even in the face of Douglas's summary judgment motion, which required Buyers to come forward with all arguments and evidence supporting a finding of invalidity as to claim 45. Buyers did not even cursorily argue claim 45 was obvious on the same grounds as the dependent claims. Case law does not allow for such an "irreconcilable inconsistency." *Id.* at 1345. Buyers' claims of obviousness, therefore, fails simply by virtue of its decision to eschew an obviousness defense and rely entirely on its unsuccessful defense of anticipation with respect to claim 45.

Of course, *Callaway* espouses a principle that is in essence the mirror image of this case. In *Callaway*, the Federal Circuit noted that where a dependent claim is invalid for obviousness, so, too, must the independent claim be obvious, while this case would involve a finding that the dependent claim is *not* obvious based on the validity of the independent claim. Therefore, the court will also consider each of the prior art combinations that Buyers asserts demonstrate by clear and convincing evidence that the dependent claims are obvious.

i. Claim 47

For example, Buyers asserts that claim 47 is invalid as obvious based on the combination of the '624 patent and U.S. Patent No. 4,236,329 ("the '329 patent"). The '329 patent, directed toward a "detachable blade mounting device," includes a support frame extending in front of and above the vehicle bumper, as shown in Figure 2 of that patent:



Specifically, the "frame assembly 20," when connected to "vehicle portion 14," extends in front of and above the vehicle's bumper. Additionally, the '329 patent discloses an actuator ("hydraulic cylinder device 42") connected to the support frame and an A-frame that, as described in the patent, pivots the A-frame about a pivot axis:

Hydraulic cylinder 42 includes an extendable piston rod 54 having its outer end connected to lift arm 48 generally at the center thereof by a pin or bolt 56. A link chain 58 is connected between the outer end of lift arm 48 and legs 28 of the A-frame. When hydraulic cylinder 42 is operated to extend rod 54, lift arm 48 pivots about pin 50 causing chain 58 to raise snow plow blade 34 from the roadway. Retraction of the piston rod results in lowering of lift arm 48 and the plow blade. Such movement of the plow blade occurs as pivotal motion about pins 30.

(‘329 patent, 4:31-49.)

Douglas agrees that the ‘329 patent discloses an actuator connected to a support frame and an A-frame, and that it describes using that actuator to pivot the A-frame about the pivot axis. (Pl.’s Resp. to DPFOF (dkt. #195) ¶ 89.) Nevertheless, Douglas argues that Buyers has not met its burden to show obviousness, because Buyers provides *no* explanation as to why a person of ordinary skill in the art would combine the ‘624 and ‘329 patents by substituting the rigid, upwardly-extending “frame assembly” of the ‘329 patent for the bell crank assembly of the ‘624 patent. Indeed, Douglas argues, the ‘624 patent explicitly *teaches away* from utilizing an upwardly extending frame assembly, calling it an existing but unsatisfactory system for vehicle-mounted snowplow assemblies in the “Background of the Invention” section:

[S]uch plows also include a bulky, view-obstructing plow lifting system mounted immediately adjacent the front end of the vehicle which includes a hydraulic cylinder oriented upwardly to engage a lifting arm which in turn is coupled to the plow by a chain. Extension of the cylinder causes the arm to be elevated which in turn causes the chain to lift the plow blade above the road surface. This type of lift system, both because of its bulk and because of its tendency to shift weight off the back wheels of the vehicle, make this type of plow unsuitable for smaller vehicles such as cars.

(‘624 patent, 1:44-55.)

“A reference that properly teaches away can preclude a determination that the reference renders a claim obvious.” *In re Mouttet*, 686 F.3d 1322, 1333 (Fed. Cir. 2012). A reference teaches away “when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a

direction divergent from the path that was taken by the applicant.” *Id.* at 1333-34 (quoting *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)).

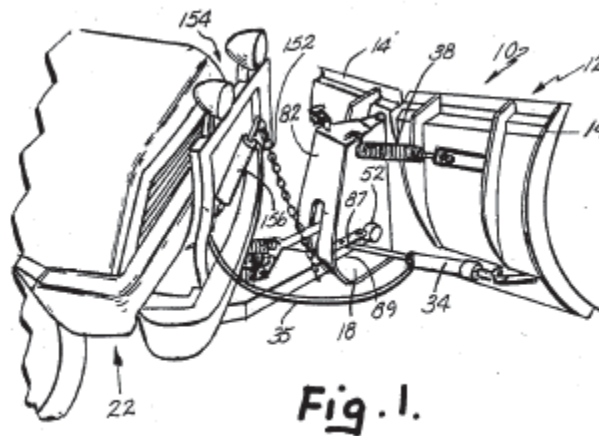
Here, the ‘624 patent unquestionably discourages persons of ordinary skill in the art from combining the rigid, upwardly-extending frame assembly/“support frame” of the ‘329 patent with the other elements of the snowplow assembly depicted in the ‘624 patent.⁶ Beyond a conclusory (and incorrect) assertion that the two patents together disclose each and every limitation of the ‘700 patent -- not in and of itself enough to show obviousness -- Buyers offers no additional evidence of obviousness. For this reason, Buyers has failed to meet its burden, and its motion for summary judgment of invalidity with respect to claim 47 is denied.

The court will also grant Douglas’s summary judgment motion of *no* invalidity with respect to claim 47. Buyers again relies solely on the combination of the ‘329 and ‘624 patents to combat Douglas’s motion. (*See* Def.’s Br. Opp’n Summ. J. & Br. Supp. Summ. J. Invalidity (dkt. #167) 29-30.) The ‘624 patent teaches away from employing lift/support frames that extend upward, potentially obscuring the driver’s view and unbalancing the vehicle, and Buyers again offers no other reason why a person of ordinary skill in the art might nevertheless be motivated to combine the support frame and actuator of the ‘329 patent with the ‘624 patent. On this record, no reasonable jury could find claim 47 obvious, and so Douglas is entitled to summary judgment of no invalidity.

⁶ Buyers’ argument that the ‘624 patent does not teach away from lift frames in general but merely discloses a new type of lift frame that does not result in the deficiencies of previous lift frames assumes a far broader construction of “lift frame” and “support frame” than this court has adopted, and also would ignore the principal advance of that patent.

ii. **Claim 48**

Buyers asserts that claim 48 is obvious in light of the combination of the ‘624 patent and U.S. Patent No. 4,658,519 (the ‘519 patent). This argument relies in part on Buyers’ assertion that the ‘624 patent discloses a support frame, which the court has rejected. Buyers does point out -- and Douglas agrees (Pl.’s Resp. to DPFOF (dkt. #195) ¶ 95) -- that the ‘519 patent discloses a light fixture including headlamps located above the snowplow blade:



It would have been obvious to a person of ordinary skill in the art, Buyers argues, to think of combining the teachings of these two patents such that the headlamp was connected to the “support frame” in the ‘624 patent (meaning the bell crank assembly), allowing for a lighted snowplow while facilitating the removal of the entire assembly as a unit. (*See* Def.’s Br. Opp’n Summ. J. & Br. Supp. Summ. J. Invalidity (dkt. #167) 30.)

In opposition, Douglas points out that the ‘519 patent features headlamps located on a “conventional lifting apparatus 154” that is mounted to the front of the vehicle. (*See* ‘519 patent, 6:62-63.) That lifting apparatus, like the “support frame” of the ‘700 patent, is fixed in place relative to the vehicle, unlike the bell crank assembly, which moves with

respect to the vehicle. Therefore, Douglas's expert testified, no person of ordinary skill in the art would think of connecting the headlamps of the '519 patent to the "bell crank assembly" of the '624 patent, since the "bell crank assembly" does not remain fixed relative to the vehicle, nor can it support anything over the plow blade. (Garris Decl. (dkt. #124) ¶ 107.) The lights "would constantly be changing in orientation as the plow blade was moved vertically because of the required movement of the bell crank assembly." (*Id.* at ¶ 103.)

The court agrees. A person of ordinary skill in the art would have no reason to attach the lights of the '519 patent to the bell crank assembly of the '624 patent, given that the bell crank assembly (1) functions by moving relative to the vehicle; and (2) is located below the plow blade in any event. Furthermore, nothing in the '624 patent describes using the bell crank assembly for mounting or support purposes.

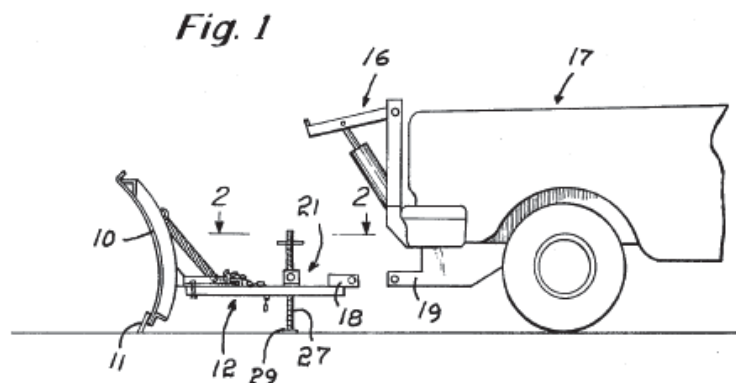
Again, it may seem a matter of pure common sense to add lights to *any* snowplow assembly to permit lighted plowing. But "[t]he mere recitation of the words 'common sense' without any support adds nothing to the obviousness equation." *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377 (Fed. Cir. 2012). Here, the only argument Buyers has offered rests on an erroneous interpretation of what constitutes a "support frame" and a bald, unsupported assertion that a person of ordinary skill in the art would think to place headlamps on a constantly-moving component of a snowplow assembly. The court credits neither of these positions as clear and convincing, and Buyers' motion for summary judgment of invalidity is denied as to claim 48.

Unfortunately for Buyers, it has offered no *additional* evidence to defeat Douglas's own motion for summary judgment of no invalidity, relying entirely on the combination of

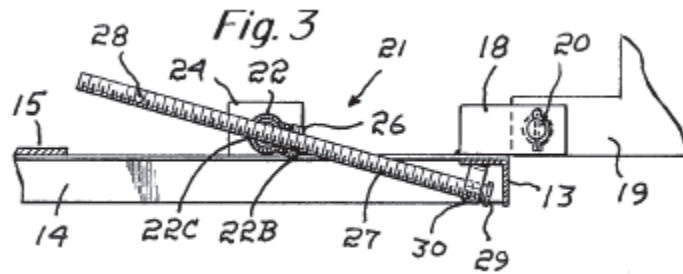
the ‘519 and ‘624 patents. A district court “is not required to scour the party’s various submissions to piece together appropriate arguments” on summary judgment. *Little v. Cox’s Supermarkets*, 71 F.3d 637, 641 (7th Cir. 1995). No reasonable jury could find on the evidence Buyers has presented that claim 48 was obvious, given that these two references combined are missing the requisite “support frame” on which the person of ordinary skill would have to think to place a headlamp. While the idea of headlamps *alone* may seem obvious, the court “need not consider ... arguments that certain dependent claim *limitations* would have been obvious where the base claim has not been proven invalid.” *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1375 (Fed. Cir. 2013) (emphasis added). Without more from Buyers, Douglas is entitled to summary judgment of no invalidity on this claim.

iii. Claim 49

Buyers argues that claim 49 is obvious in light of the combination of the ‘624 patent with U.S. Patent No. 4,205,825 (“the ‘825 patent”), which is directed at a “jack for snow plow frames” and discloses a support leg pivotally supported by the A-frame, extending from the assembly to the ground to support the assembly when the plow is unmounted:



Additionally, the jack unit of the ‘825 patent is extended through a “keeper” (labeled 30 in Figure 3, below) when the plow is mounted and in use:



Douglas disputes that the combination of the ‘624 patent with the ‘825 patent discloses each and every limitation of claim 49 (Pl.’s Resp. to DPFOF (dkt. #195) ¶ 101), directing the court to the Garris declaration, which indicates that the ‘624 patent does not disclose a lift frame, and that the ‘825 patent does not cure those deficiencies. (Garris Decl. (dkt. #124) ¶¶ 88-89.) The court agrees. While the ‘825 patent certainly appears to disclose the required *additional* requirements of claim 49 (and Garris does not opine otherwise), the ‘624 patent does not, as previously discussed, disclose a “support frame” and in fact explicitly teaches away from using such frames. The court therefore cannot say that the combination of the ‘825 patent and the ‘624 patent is clear and convincing evidence that the invention of the ‘700 patent is obvious, at least not without more than Buyers has offered here. And again, while the “support stand,” taken alone, seems obvious, the court need not consider arguments directed at single dependent claim limitations when the claim as a *whole* has not been proven invalid. *See SynQor*, 709 F.3d at 1375.

As discussed above, Buyers was placed on notice to come forward with all of its evidence with regard to invalidity of this claim in response to Douglas’s mirror image cross-motion on claim 49. Since its only response was to offer the ‘624 patent and the ‘825 patent -- with little to no explanation as to why those two references make claim 49 obvious, particularly in light of the lack of support frame and the ‘624 patent’s teaching

away from using support frames -- Douglas's motion for summary judgment of no invalidity will be granted with respect to claim 49.

iv. Claim 51

Finally, as with claim 49, Buyers argues that claim 51 is obvious in light of the combination of the '624 patent and the '825 patent. Claim 51 adds the limitation of a support stand for supporting the A-frame in a generally horizontal position, and in the unmounted state, for selectively adjusting the vertical position of the assembly. The language of the limitation in claim 51 tracks that in the '700 patent's claim 9. (*Compare* '700 patent, 14:9-14, *with* '700 patent, 19:41-20:4.) In his expert report, Buyers' expert admits in analyzing claim 9 that the '825 patent "discloses a jack that is adjustable to raise and lower a snowplow frame." (Garris Decl. (dkt. #124) ¶ 88.) But as above, neither patent discloses the requisite support frame and the '624 patent actually teaches away from it. Also as above, Buyers offers nothing more than the unexplained combination of the two patents to prove obviousness. Accordingly, the court will again deny Buyers' motion on obviousness and grant Douglas's.

ORDER

IT IS ORDERED that:

- 1) Plaintiff Douglas Dynamics, LLC's motion for summary judgment of no invalidity (dkt. #120) is GRANTED;
- 2) Defendant Buyers Products Co.'s motion for summary judgment of invalidity (dkt. #166) is DENIED;
- 3) Plaintiff's motion for summary judgment of infringement (dkt. #158) is GRANTED; and

- 4) Defendant's motion for summary judgment of non-infringement (dkt. #170) is DENIED.

Entered this 13th day of March, 2014.

BY THE COURT:

/s/

WILLIAM M. CONLEY
District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

DOUGLAS DYNAMICS, LLC,

Plaintiff,

v.

BUYERS PRODUCTS COMPANY,

Defendant.

OPINION AND ORDER

09-cv-261-wmc

A final pretrial conference for damages attributable to infringement of the ‘700 patent was held April 3, 2014. Plaintiff appeared by attorneys Aaron Olejniczak and Christopher Liro; defendant appeared by attorneys Thomas Shunk, Christina Moser and Andrew Clarkowski. Generally, the court confirmed both sides will be held to their original expert reports, testimony and arguments at the original damage trial, as supplemented by their updated expert reports and/or altered by changes in the law. More specifically, the court held that: Douglas cannot now claim that the ‘538 and ‘978 patents had no impact on snow plow assembly sales; nor can Buyers now claim that those patents were the principal drivers of snowplow assembly sales. Having said that, to the extent the law on recovery of damages has changed, the court will do its best to accommodate those changes during the trial. In addition, the court ruled as follows with respect to both sides’ motions in limine.

I. Douglas's Motions in Limine

A. *No. 15: To exclude supplemental expert report of Andrew Finger (dkt. #643)*

Douglas asks the court to exclude evidence and opinions from the January 31, 2014 Supplemental Expert Report of Andrew Finger (“2014 Finger Report”) in its entirety. Douglas’s central argument is that the parties previously represented, and the court ordered, that they would update their expert reports to incorporate additional sales, but not adopt previously undisclosed theories or methods. In contrast to that order, Douglas argues that the 2014 Finger Report states various new theories based on new evidence, including new analysis of marketing materials and criticism of Douglas’ expert Bero’s methods and the relative benefits of the attachment/detachment systems in the ‘530 and ‘978 patents, rather than the freestanding or unilateral removal of the snowplow assembly disclosed by the ‘700 patent. The 2014 Finger Report also theorizes based on *BIC Leisure Products*, 1 F.3d 1214, that the first and second *Panduit* factors¹ do not apply because Buyers does not compete with Douglas, which was not a theory in his earlier report. Finally, the 2014 Finger Report “brushes aside” the 25% rule for royalty purposes and places a starting point for royalties at 1% based on the Federal Circuit’s

¹ In *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978), the court held, and the Federal Circuit has repeatedly endorsed since, that a patentee may be entitled to lost profits damages upon proof of the following elements by a preponderance of the evidence:

- (1) demand for the patented product;
- (2) absence of acceptable non-infringing substitutes;
- (3) manufacturing and marketing capabilities to exploit the demand; and
- (4) amount of profit it would have earned.

Id. at 1156; *see also Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995) (pointing to *Panduit* test as “a useful, but non-exclusive, way for a patentee to prove entitlement to lost profits damages”).

rejection of the 25% rule in *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

Buyers responds generally that all Finger did was reiterate his previous opinions while limiting them to the ‘700 patent. Responding specifically to Douglas’s objections, Buyers states that:

- Finger relied on his analysis of marketing materials in reaching his original opinion (ECF 306, at 5) and during his deposition (ECF 335, at 197-201), or alternatively, that Finger’s testimony is a permissible supplement since it responds to Bero’s altered opinions and the testimony of Douglas’ own witnesses at the previous trial.
- Finger’s original opinion discusses at length his position that the ‘700 patent does not drive demand, and that his previous testimony was based on Douglas’s own claims.
- Finger’s market segment analysis was fully explicated in the previous trial, and it is only the citation to *BIC Leisure Products* to which Douglas objects.
- Finger’s allocation opinion is not new, because his original report did not rely on the 25% rule to value the ‘700 patent.

Finally, Buyers argues that Douglas cannot show it is harmed in any way.

The court is not prepared to exclude Finger’s report in its entirety. It will, however, respond to each of Douglas’s specific objections. *First*, with respect to Finger’s analysis of marketing materials and his more general opinions as to which of Douglas’s patents drive demand, the court will not prevent Finger from testifying, consistent with

his previous opinions and testimony, that *none* of the ‘700, ‘530 and ‘978 patents are particularly important. Finger may not, however, present any comparison of the relative importance of the three patents inconsistent with his previous testimony. *Second*, with respect to Finger’s market segment analysis, the court will certainly preclude mention of the *BIC Leisure Products* case specifically, but it will not preclude him from presenting his analysis. *Third*, the objection to Finger’s reliance on the 25% rule is well-taken. Given the change in the law and given that both sides represent they can arrive at their royalty calculations without use of the 25% rule, the court holds that neither side is permitted to refer to the 25% rule throughout the trial, whether in opening, direct, cross-examine or closings.

B. No. 16: Preclude Finger’s Expert Opinion re: Lost Profits Damage (dkt. #645)

Douglas asks the court to exclude the opinion and testimony of Finger regarding lost profits damage. Douglas argues that its own expert, Bero, uses the well-established method of substituting market share evidence for the second *Panduit* factor, but Finger’s new expert report rests entirely on the first and second *Panduit* factors, fails to apply the law correctly and is inadmissible under Fed. R. Evid. 702. Specifically, Douglas argues that:

- Finger’s reports assume that the first *Panduit* factor requires demand for the patented *feature*, not just for the patented product, which is incorrect under Federal Circuit law. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1330 (Fed. Cir. 2009) (first factor “does not require any allocation of

consumer demand among the various limitations recited in a patent claim” but asks only “whether demand existed for the ‘patented product’”).

- Finger’s reports assume that the second *Panduit* factor requires an absence of acceptable, non-infringing alternatives, but the law states that a patent owner can recover lost profits even if acceptable, non-infringing substitutes are available under the market share approach. Additionally, Finger incorrectly opines on alternatives to prospective customers, rather than to Buyers.
- Finger’s reports incorrectly argue that Buyers’ lower selling price segments the market such that the snowplows are not direct competitors.

Buyers responds that Finger’s testimony is essentially that Douglas has failed the most basic legal requirement for proving lost profits: it has not proven the causal connection between the patented feature and consumer demand. It argues that Douglas’s language from *DePuy Spine* addressed only a single subset of the question of how the market would have behaved absent infringement and given all available alternatives. Additionally, it argues that Douglas is asking the court to shortcut the required nuanced, fact-intensive analysis of lost profits, particularly as properly analyzing the definition of the relevant market, and the court cannot rely on the Federal Circuit’s finding of competition for permanent injunction purposes in order to find competition for lost profits purposes. Finally, it argues that in analyzing *Panduit* factors one and two, Finger has responded directly to Bero’s analysis and his report cannot now be excluded based on Bero’s errors.

The court agrees that Finger may not misstate the law and opine that lost profits analysis requires demand for the patented feature, not the product. Finger is free, however, to disagree with Bero's market-share analysis and argue generally that Buyers and Douglas were competing in separate marketplaces and that, in the market in which Buyers was competing, the sales of Douglas's patented product would not have replaced its sales.

C. No. 17: Exclude Irrelevant Evidence of Reasonable Royalty Rates (dkt. #647)

Douglas asks the court to exclude Finger's testimony or evidence as to an appropriate reasonable royalty rate for the '700 patent. Douglas states that Finger's September 2010 report uses the 25% rule, which is now inadmissible under Fed. R. Evid. 702 based on the Federal Circuit's decision in *Uniloc*.

Buyers points out that its references to the 25% rule in the September 2010 report were all based on Bero's original reliance on that rule and, regardless, Finger's original report ultimately relied not on the 25% rule but instead on the Curtis settlement. Finally, Buyers argues that Douglas's motion is overbroad, because it seeks to exclude *all* of Finger's reasonable royalty opinion when much of that is a rebuttal to Bero's own analysis.

Consistent with the ruling on Douglas's Motion in Limine No. 15, *supra*, the court grants this motion only to the extent that neither side may refer to the 25% rule.

D. No. 18: Exclude Curtis Settlement Agreement under Fed. R. Evid. 403 and 408² (dkt. #649)

Douglas renews its request that the court exclude the Curtis Settlement Agreement, which settled prior patent litigation under the ‘700 patent in this district and in the District of Massachusetts and included non-exclusive, cross-licenses. The court excluded this evidence from the original damage trial principally because the ‘700 patent was not part of that first trial. Nevertheless, Douglas argues that the Federal Circuit has now clarified that such settlement agreements are *not* admissible except in rare instances. *See LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 77 (Fed. Cir. 2012) (settlements are generally not admissible to establish reasonable royalty damages but may be admissible when “uniquely relevant and reliable,” as in *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860 (Fed. Cir. 2010)). Here, Douglas argues that the potential probative value of the Curtis Settlement Agreement is dubious, since the agreement includes *Douglas’s payments for the Curtis patents*, rather than simply reflecting the economic footprint of the ‘700 patent.

Buyers responds that the Federal Circuit has not categorically barred settlement agreements. Here, it asserts the Curtis Settlement Agreement is relevant and admissible because: (1) Bero relied on the Curtis license; (2) the license is relevant to defining the market; (3) the contemporaneous documents establish that Curtis was licensed under the ‘700 patent and had to mark its products with the ‘700 patent number; (4) the license is

² Buyers has also moved for confirmation that the Curtis License is *not* excluded in limine. (Dkt. #625.)

relevant to reasonable royalty calculation because it represents the only attempt to place a value on the '700 patent.

At this time, it does not appear that the Curtis Settlement Agreement is uniquely relevant and reliable, not because it was arrived at in a litigation setting, but because it was arrived at by an effort to value cross-licenses on the Curtis and the '700 patents. The mere fact that it appears to be the only such license available does not justify its admission under *LaserDynamics*. Buyers is free to make a proffer demonstrating that the Curtis Settlement Agreement is in fact uniquely relevant and reliable, and the parties may refer to the fact that the Curtis Settlement Agreement creating a cross-license arrangement, including use of the '700 patent invention, exists, but the actual value of the license in that agreement is excluded.

E. No. 19: Preclude Evidence re: Patent Reexam (dkt. #651)

Finally, Douglas asks us to preclude Buyers from offering anything regarding the pending reexamination of the '700 patent. Because the court has already determined that the claims are infringed and valid as a matter of law, any evidence regarding the pending reexamination is entirely irrelevant and would confuse the jury, particularly since non-final reexamination proceedings do not demonstrate that a patent is likely invalid. *See Hoechst Celanese Corp. v. BP Chemicals Ltd.*, 78 F.3d 1575, 1584 (Fed. Cir. 1996) (“We take notice that the grant by the examiner of a request for reexamination is not probative of unpatentability.”).

Buyers does not appear to argue that the reexamination is relevant. Instead, it argues that if the court allows Douglas to present evidence as to the procedural details

leading up to this trial, the court should allow the jury to hear the whole story, including the reexamination.

The court agrees that the pending reexamination is irrelevant to the jury's determination of damages for the infringement of the '700 patent. Likewise, all references to other procedural details are excluded (*see* discussion, *infra*).

II. Buyers' Motions in Limine

A. No. 14: Exclude Evidence Regarding Prior Proceedings (dkt. #614)

In a motion closely related to Douglas's motion in limine No. 19, Buyers asks the court to exclude any evidence of prior proceedings, because they are irrelevant and would likely confuse the jury and prejudice Buyers. It concedes that infringement is relevant and asks the court to use language stating: "It has previously been determined that the combination of Buyers' SnowDogg snowplows with vehicles, after mounting, contains all the limitations set out in claims 45, 47, 48, 49 and 51 of the '700 patent."

Douglas argues that this information is important for damages purposes for the jury to hear about all three patents and how the potential damages relate to them. Next, it argues that Buyers' proposed language leaves out the patents' validity and seeks to mislead the jury by arguing indirect infringement under the pretext of a damages argument. Douglas requests that the court order Buyers not to argue or address indirect infringement to the jury. Finally, Douglas submits that it must be allowed to address:

- that its expert determined a rate for the '700 patent by first determining a rate for the '700, '530 and '978 patents;

- that the court previously determined that Buyers infringed the ‘530 and ‘978 patents, and that the proper amount of damages must account for previously-paid damages;
- that the court previously determined that Buyers’ products infringe claims 45, 47, 48, 49 and 51 and that the court determined those claims to be valid.

Buyers is correct that most of the procedural details of this case would simply muddy the waters and would not be relevant. Generally speaking, then, the court excludes any evidence or discussion of procedural details. The parties are not to refer to prior proceedings, except for impeachment purposes. The exception to this general bar is that the court will instruct the jury that it previously: found infringement of claims 45, 47, 48, 49 and 51 of the ‘700 patent; found infringement of the ‘530 and ‘978 patents; and awarded damages as to those two patents. The jury will *not* be informed of the dollar amount of those awards, but may be told what the royalty percentage was for each patent, so as to prevent a double recovery.

B. No. 15: Exclude Geographic References (dkt. #615)

Buyers asks the court to exclude any “inappropriate evidence” of the parties’ geographic locations. It acknowledges that “basic geographic location of the parties and the association of witnesses with particular colleges and universities is typical background information and may be introduced at trial” but contends that in the previous trial, Douglas made particular statements that attempted to prejudice Buyers by referring to: (1) Buyers’ engineer’s connection to Ohio State, playing on the football rivalry between

Wisconsin and Ohio State; and (2) Douglas' Milwaukee-based employees, prejudicing the jury to attempt to "save local jobs."

Douglas responds that: (1) Buyers did not object to the Ohio State reference before and opened its direct of the engineer with the same fact; and (2) the reference to Milwaukee employees was innocuous and did not suggest any jobs were at stake, much less Madison jobs.

It is too far a stretch to argue that the reference to Ohio State, or to the fact that Douglas has employees in Milwaukee, will prejudice the jury. Buyers is free to object to specific arguments or testimony at trial, but it goes too far to say it is appropriate to preclude this background information on grounds of prejudice, and so this motion is denied. Should Buyers so request, the court is willing to ask questions about any such bias during voir dire.

C. *No. 16: Exclude Non-Expert Damages Opinions (dkt. #616)*

Buyers asks the court to exclude the lay testimony of Douglas's chief engineer, Gary Watson, arguing that he is an engineer without expertise in lost profits. Furthermore, Buyers argues that Douglas' expert declined to opine that Douglas was entitled to sales for lost parts and accessories, but Watson's previous testimony got into that area, and he should not be permitted to offer lay opinion testimony on a type of damages Douglas is not pursuing.

Douglas responds that Watson is not merely an engineer; his titles included Engineering Director, Quality Director and Assistant to the President. He has been in a decision-making role in product and market development since 1977, he has an MBA,

and he was designated as Douglas' 30(b)(6) representative on topics related to sales and marketing of '700 patent products. He is involved in and informed of competitive and marketing assessments throughout the company, regularly attends industry trade shows to monitor the market and is involved in Douglas' market surveying activities to assess the company's market share and driving market forces. He was also identified as having discoverable information related to damages and irreparable harm. The testimony Watson offered in 2010 was provided to show Douglas' perspective in the context of a hypothetical negotiation as to a reasonable royalty rate. And finally, if Buyers believes Watson is speculating, offering testimony without foundation or providing expert opinions, Buyers may object at that time. Still, Douglas concedes that Watson was never disclosed as an expert witness in this lawsuit pursuant to Fed. R. Civ. P. 26(a)(A) and (C).

The court will grant the motion to the extent that Watson may not provide expert opinions or testimony. He may, however, offer lay opinion and state facts of which he has personal knowledge, based on his employment with Douglas.

D. No. 17: Exclusion of Undisclosed Opinions (dkt. #618)

Buyers asks the court to exclude expert opinions not previously disclosed by Douglas. Specifically, Buyers argues that Douglas' expert, Bero, "extemporized a new valuation opinion during his trial testimony when he realized he had not separately valued the patents." Douglas responds that this motion is premature and that if Bero's testimony strays from his prior disclosures at any point, the court can address the specific testimony and objection at that time.

As a general rule, the court will hold the parties to their disclosures, so granting this specific motion is unnecessary. Buyers is, of course, free to object if Bero opines on something not previously disclosed. Its specific objection to Bero's calculation of the appropriate royalty rate is denied, however, because (1) Bero was allowed to break out his royalty calculations in light of the court's (ultimately erroneous) exclusion of the '700 patent from the first trial, (2) damages have been awarded on the other two patents, and (3) no objection was made at that time. Unless Buyers were willing to allow a retrial of all damages, including those for lost profits on the '538 and '978 patents, something its counsel declined to pursue at the final pretrial conference, then an explanation of the royalty break out is wholly appropriate. More generally, both sides should come prepared to point to the portions of their expert reports where their previous opinions are disclosed, so as to ensure sidebars are limited in nature.

E. No. 18: Limit Testimony of Dr. Garris (dkt. #619)

Buyers asks the court to limit the testimony of Dr. Garris, but Dr. Garris is apparently no longer testifying in this case, according to Douglas. Thus, the court agrees with Douglas that this motion is moot.

F. No. 19: Exclude Expert Testimony that Reiterates Others' Opinions (dkt. #620)

Buyers asks the court to exclude any of Bero's opinions that rest primarily or entirely on Douglas's own unsupported facts or opinions (the specific example it gives is the competitive pricing matrix at Schedule 23.10). Rather, Buyers argues that any underlying evidence or opinions must themselves be independently verified.

Douglas responds that Bero's opinions are based on well-established frameworks laid out in cases from the Federal Circuit and other courts, and that Bero merely relied on inputs from the parties to reach his opinions, citing *Tuf Racing Products v. American Suzuki Motor Corp.*, 223 F.3d 585, 591 (7th Cir. 2000), in which the court rejected a challenge to a CPA's earnings projections even though the projections were the product of financial information furnished by Tuf and assumptions given to him by counsel of the effect of termination on sales. The court reasoned that the *methodology* was within the competence of a CPA, notwithstanding the reliability of the data itself, and the court's role is generally limited to assessing methodology. Douglas argues that Buyers is free to question Bero about his reliance on specific pieces of financial and market information, to question fact witnesses or to challenge deposition designations, but that the court should not exclude his opinions on the grounds Buyers advocates.

Again, the court agrees with Douglas, and will deny this motion. Buyers is really making a blanket challenge to the underlying data with which Bero worked, not his methodology. Indeed, financial experts regularly rely on the facts, data and reasonably-informed opinions of clients and others in arriving at damage calculations, leaving for the jury to decide whether the underlying facts, data and opinion are true. If Buyers has a *particular* item it wants to challenge, it may do so before or during the trial itself.

G. No. 20: Exclude Market Innovativeness Survey (dkt. #621)

Buyers asks the court to exclude argument, testimony and other evidence relying on the "Market Innovativeness Survey" published in 1997 and relied upon in Bero's original expert report. It contends that the study "does not say anything about a

particular hypothetical negotiation or reasonable royalty involving any particular technology, industry, or party” and should be excluded based on *Uniloc*.

Douglas agrees not to enter the study into evidence or refer to it before the jury so long as Buyers agrees to do the same. Douglas does contest Buyers’ characterization of Bero’s reliance on the study, however, arguing that Bero merely used it as a “reasonableness check” and that any exclusion of the study does not undermine Bero’s opinion itself.

Given Douglas’s concession, both parties are precluded from entering the 1997 study into evidence or referring to it before the jury. As for any argument that its absence wholly undermines Bero’s report, the court disagrees.

H. No. 21: Exclusion of Undisclosed Direct Infringement Damages theories (dkt. #622)

Buyers asks us to exclude any damages theories offered by Douglas as to *direct* infringement, because all of its theories are currently directed at *indirect* infringement. Buyers’ theory here is that it should be permitted to present evidence as to *mens rea* required for indirect infringement, arguing that the court must then dismiss Douglas’ claim for indirect infringement and limit Douglas’ damages calculation to whatever damages it can prove that it suffered from acts of direct infringement. The argument is premised in part on Buyers’ contention that the Federal Circuit made no determination regarding the *scope* of Buyers’ infringement; since the question of indirect and contributory infringement remains unresolved, Douglas can only recover damages for the *directly* infringing activities that it can prove.

Douglas points out, as this court has already found, that (1) the Federal Circuit ruled Buyers' products directly infringed and (2) there is no need for further evidence of indirect infringement at this point. Accordingly, Douglas contends that it should be allowed to prove up damages based on sales of Buyers' products without further distinction.

While Buyers has presented and preserved a clever legal argument, it can go nowhere at this stage of the lawsuit for legal, practical and factual reasons. The Federal Circuit held that Buyers' products contain each and every limitation of claim 45 as properly construed, without addressing the *mens rea* of indirect or contributory infringement at all. It is logically inconsistent to say that the Federal Circuit found that Buyers' products directly infringed the '700 patent, but that Douglas cannot now prove up damages based on those same products. In any event, there is *no* alternative use that could be made of the infringing snowplow assemblies (other than perhaps very expensive and unattractive lawn ornaments or outdoor sculpture). Certainly, the evidence is that these assemblies are bought and sold for *one* reason -- to attach to vehicles as contemplated for direct infringement of the '700 patent.

I. No. 22: Exclude References to Profits in Excess of Proper Royalty Base (dkt. #624)

Buyers asks us to exclude argument, testimony and evidence referring to Buyers' total profit and/or sales or profit in excess of the proper royalty base, arguing that the entire market rule allows assessment of damages based on entire market value of the product only where the patented feature creates the basis for customer demand or the

value of the component parts and that, here, there is no justification for application of that rule to the facts of this case, particularly because it would unfairly prejudice the jury and artificially inflate damages calculations.

Douglas responds that the entire market value rule is not relevant in this case, and that the royalty base in Bero's analysis is Buyers' sales revenue of infringing vehicle-mounted snowplow assemblies, the same base used by Bero, Finger, and the court (in determining damages and royalties on the '530 and '978 patents, neither of which Buyers appealed). Douglas also argues that using the value is not prejudicial, because the claims cover, and the parties sell, complete vehicle-mounted snowplow assemblies. Finally, Douglas argues that the reports and testimony of Bero establish support for the notion that the '700 patent drives customer demand for the entire assembly.

This motion is in large part denied. Contrary to Buyers' argument, the court understands these plows to be sold to customers as complete snowplow assemblies (a single unit), not as individual parts. It will, however, grant the motion to the extent that Douglas may not refer at trial to the gross sales and profits derived from all of Buyers' businesses and products, but only to those related to snowplow assemblies.

J. *Unnumbered* Motion in Limine (dkt. #625)

Buyers also moves in limine to confirm that the Curtis Settlement Agreement will not be excluded. The court addressed that above and reiterates here that Buyers may reference the fact that Douglas entered into a license on the '700 patent by settlement, but it may not introduce the amount or percentage of that license.

III. *Daubert* Motion to Exclude Bero's Testimony (dkt. #612)

Buyers has also moved to exclude Bero's testimony entirely. In the court's view, the motion primarily criticizes the assumptions on which Bero relies. Buyers is free to challenge and dispute any assumptions underlying Bero's expert testimony, and the court will instruct the jury as to all experts that to the extent those experts rely on faulty assumptions in rendering opinions in this matter, they should discount the expert's opinion. The court will not, however, preclude Bero -- indeed, will not preclude either damages expert -- from testifying in an attempt to assist the jury in the difficult process of determining the appropriate amount of damages in this case.

IV. Other Motions in Limine

At the final pretrial conference, the court requested that the parties advise it as to whether there are other motions in limine from the first trial of this matter that may have application to the upcoming trial. In particular, the court requests that the parties notify it of any motions in limine that were not fully addressed given the limited scope of the first trial and that still require rulings now. The parties should apprise the court of any such motions in limine by the end of the day on Monday, April 7, 2014.

ORDER

IT IS ORDERED that:

- (1) plaintiff's motion in limine No. 19 (dkt. #651) is GRANTED;
- (2) plaintiff's motions in limine Nos. 15, 16, 17 and 18 (dkt. ##643, 645, 647, 649) are GRANTED IN PART and DENIED IN PART consistent with the opinion above;

- (3) defendant's motion in limine No. 20 (dkt. #621) is GRANTED;
- (4) defendant's motions in limine Nos. 15, 17, 19 and 21 and motion to exclude the testimony of Richard Bero (dkt. ##612, 615, 618, 620, 622) are DENIED;
- (5) defendant's motion in limine No. 18 (dkt. #619) is DENIED AS MOOT;
- (6) defendant's motions in limine Nos. 14, 16 and 22 and motion to confirm the Curtis License (dkt. ##614, 616, 624, 625) are GRANTED IN PART and DENIED IN PART, consistent with the opinion above; and
- (7) the parties shall apprise the court not later than 5:00 p.m. CST on Monday, April 7, 2014, of any pending motions *in limine* that still require decision.

Entered this 4th day of April, 2014.

BY THE COURT:

/s/

William M. Conley
District Judge

United States Patent

[19]

[11] E

Patent Number: Re. 35,700**Watson et al.****[45] Reissued Date of Patent: Dec. 30, 1997****[54] REMOVABLE SNOWPLOW ASSEMBLY
WITH PIVOTABLE LIFT STAND****[75] Inventors: Gary E. Watson; James R. Doornek,**
both of Mequon; **Thomas P. Fechter,**
Jackson, all of Wis.**[73] Assignee: Douglas Dynamics, L.L.C.,**
Milwaukee, Wis.

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[64] Patent No.: 5,125,174
Issued: Jun. 30, 1992
Appl. No.: 686,123
Filed: Apr. 15, 1991

U.S. Applications:

[63] Continuation of Ser. No. 268,195, Jun. 29, 1994, abandoned.**[51] Int. Cl.⁶ E01H 5/04****[52] U.S. Cl. 37/231; 37/235; 37/270****[58] Field of Search 37/231, 232, 233,**
37/234, 235, 236, 266, 270, 271**OTHER PUBLICATIONS**

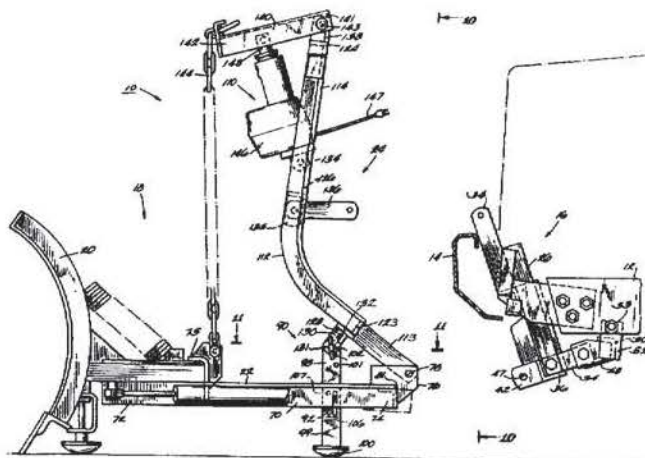
Diamond Snow Plows; publication date unknown.
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Primary Examiner—Terry Lee Melius*Assistant Examiner*—Victor Batson*Attorney, Agent, or Firm*—Michael, Best & Friedrich**[57]****ABSTRACT**

A detachable snowplow blade lift assembly including a [mount] mounting frame permanently connected to the vehicle frame. A snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame is pivotally connected to the [mount] mounting frame. A lift frame assembly including a lift actuator mechanism for raising and lowering the A-frame and snowplow blade is pivotally connected to the A-frame for rotation about a pivot axis. The snowplow blade lift assembly also includes a mounting arrangement for releasably connecting the A-frame and lift frame as a unit to the vehicle for pivotable movement of the A-frame relative to the vehicle and to the lift frame about the pivot axis. The A-frame mount affording pivotal movement of the A-frame and the lift frame about a common pivot axis provides a snowplow blade lift assembly which can be attached to, and detached from, the mounting frame as a unit and which has the capacity to stack snow.

56 Claims, 6 Drawing Sheets**[56] References Cited****U.S. PATENT DOCUMENTS**

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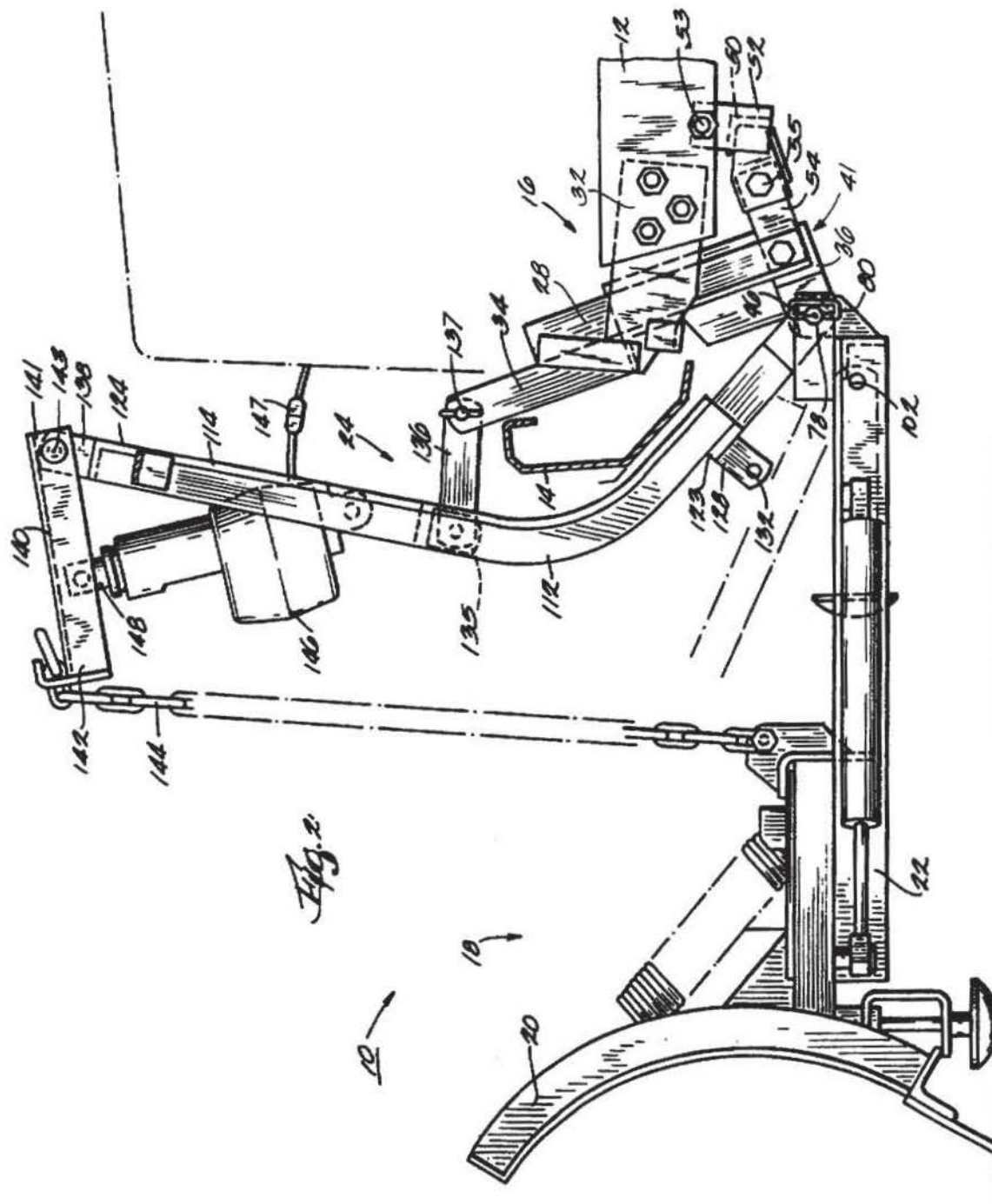
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Page 2

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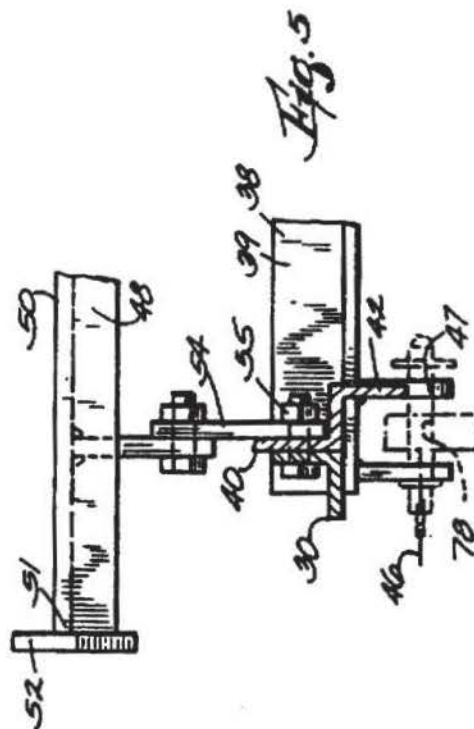
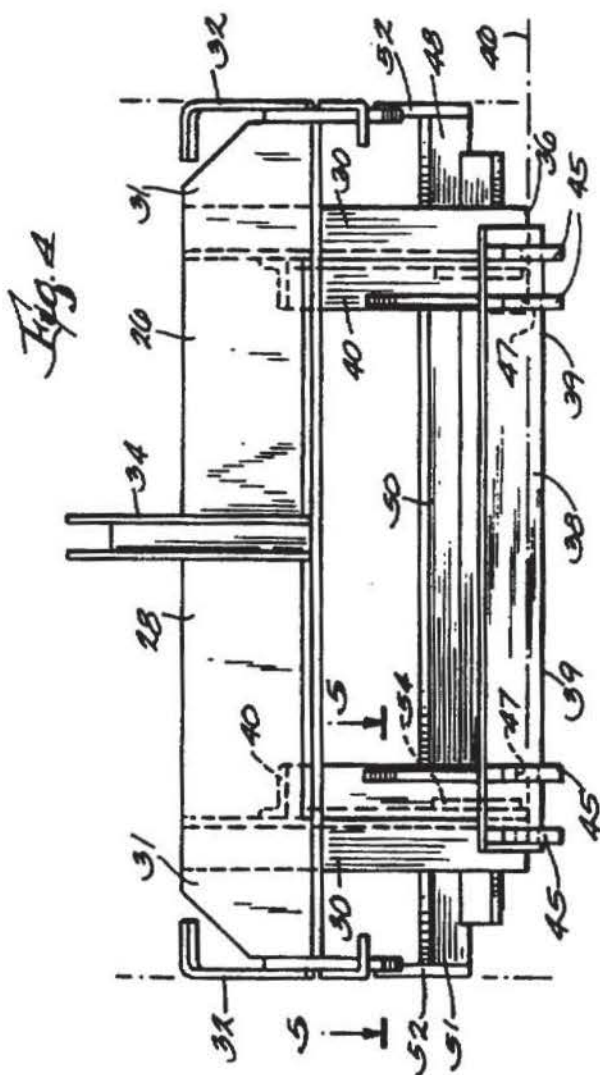
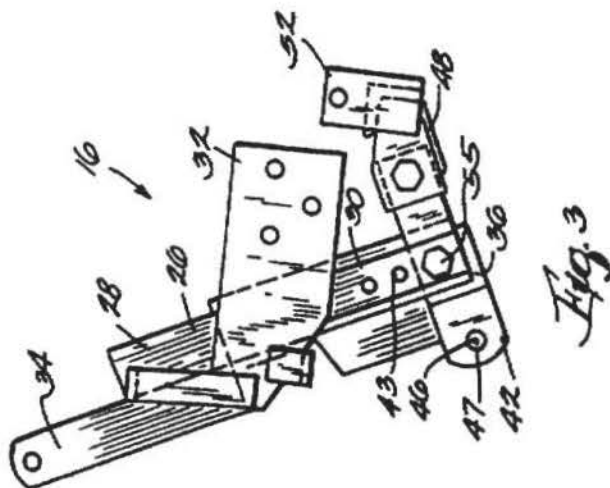


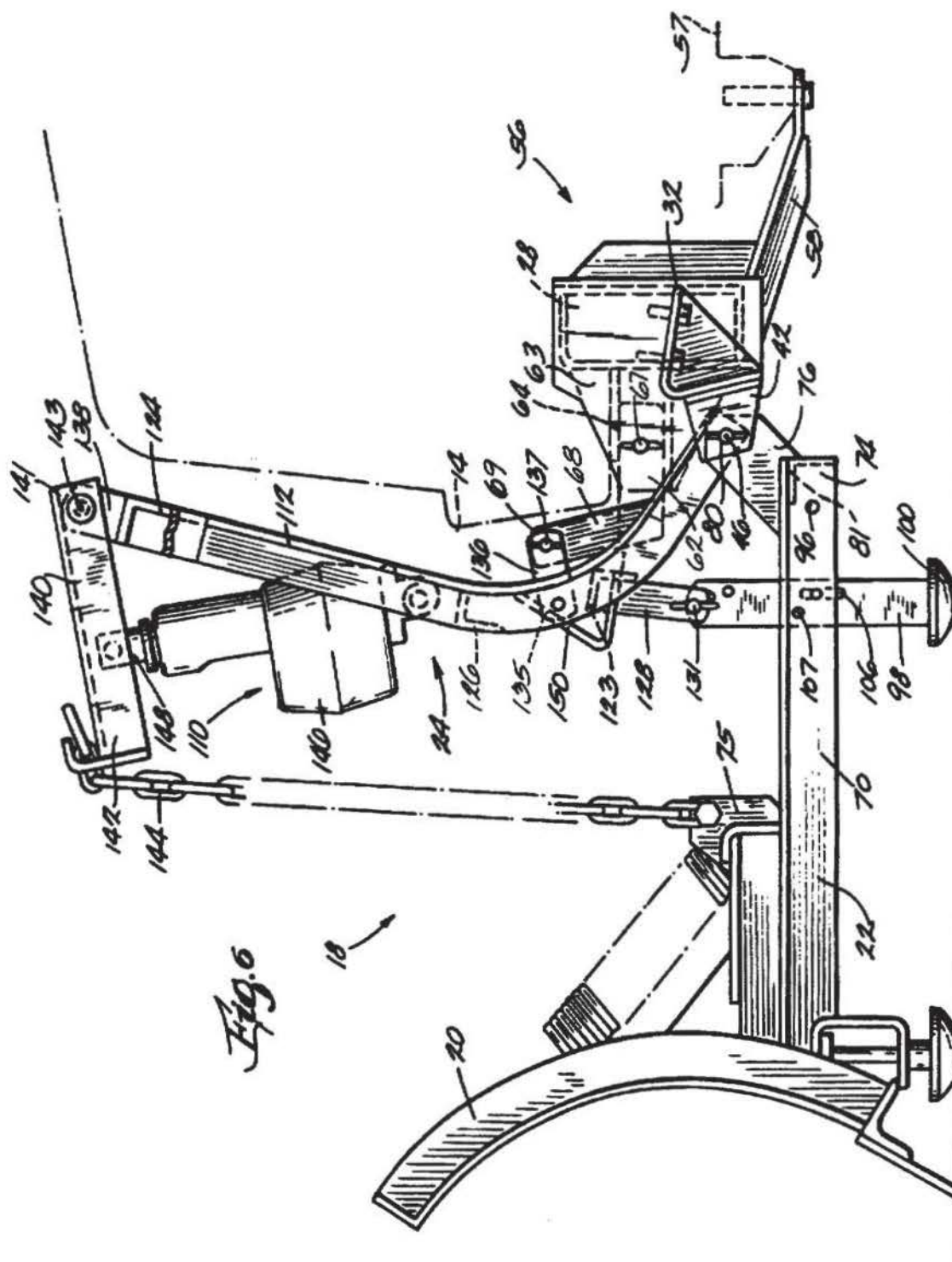
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Dec. 30, 1997

Sheet 3 of 6

Re. 35,700



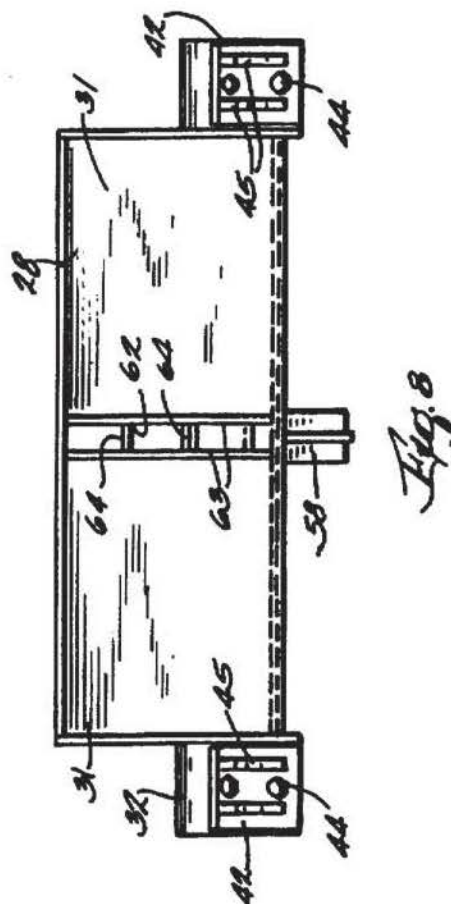
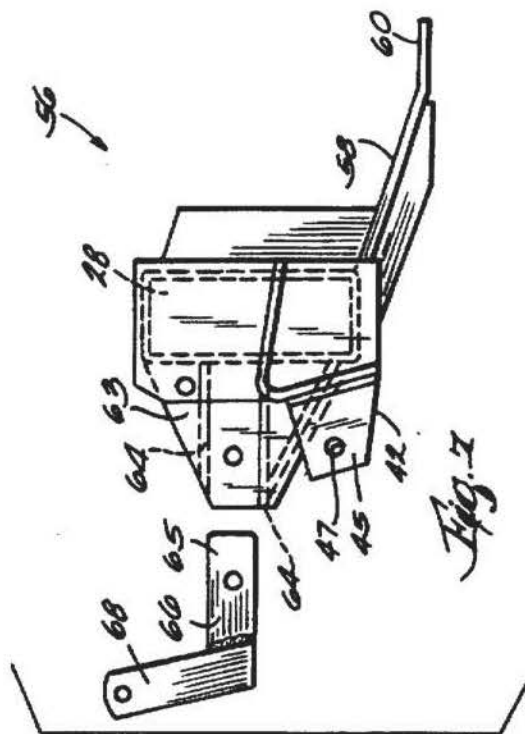
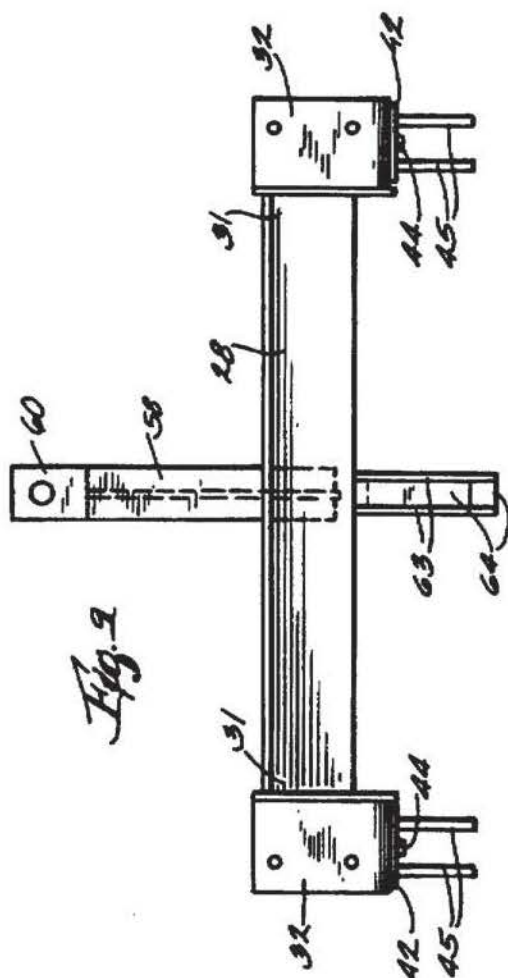


U.S. Patent

Dec. 30, 1997

Sheet 5 of 6

Re. 35,700



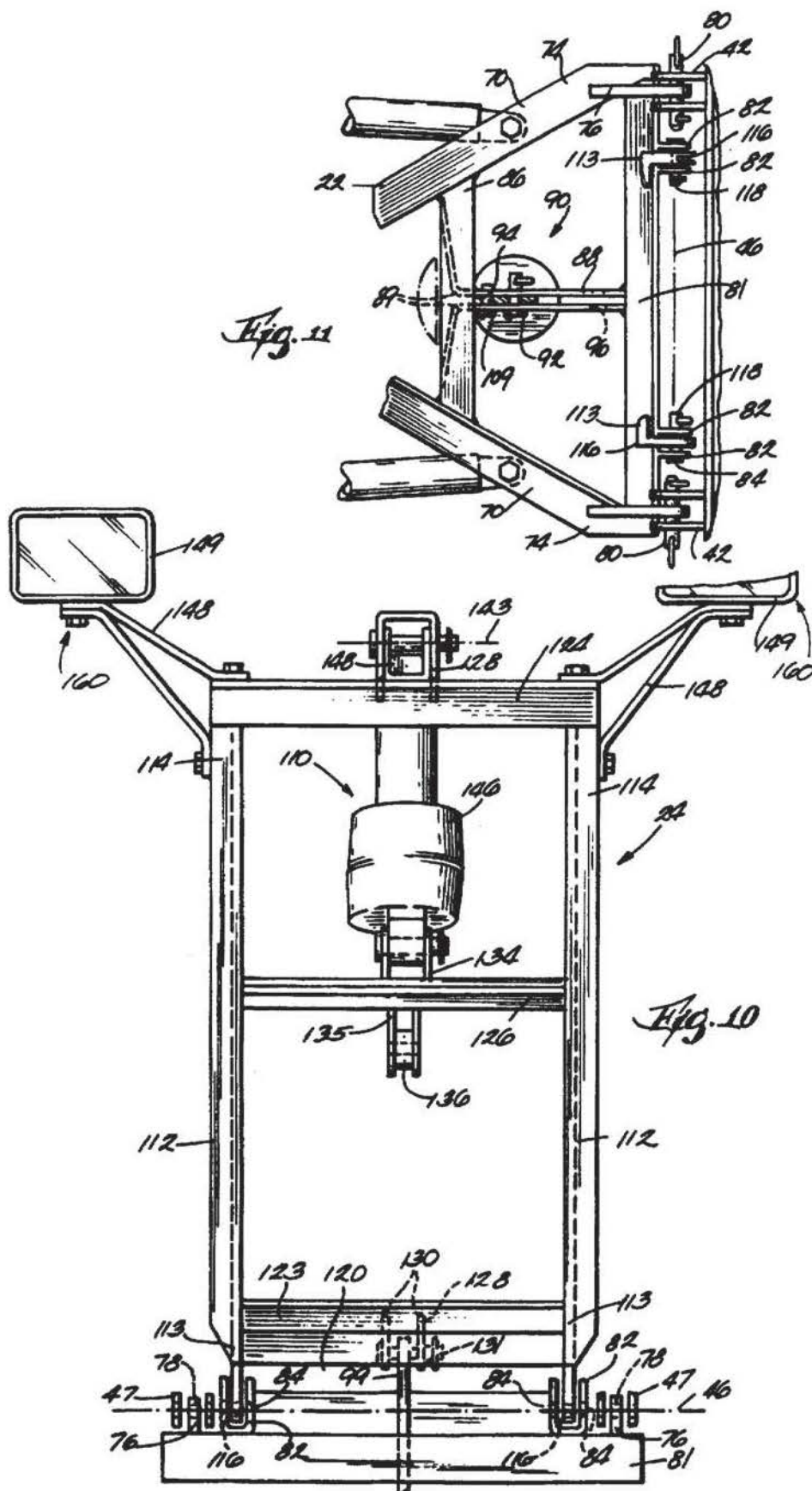
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U.S. Patent

Dec. 30, 1997

Sheet 6 of 6

Re. 35,700



JA112

Re. 35,700

1

REMOVABLE SNOWPLOW ASSEMBLY WITH PIVOTABLE LIFT STAND

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

This is a continuation of application Ser. No. 08/268,195, filed Jun. 29, 1994, now abandoned.

BACKGROUND OF THE INVENTION

1. Technical Field

The invention relates generally to snowplow blade lift assemblies for mounting on a vehicle, and more particularly to snowplow blade lift assemblies which are releasably mounted on the vehicle.

2. Relation to Prior Art

It is often desirable to provide a snowplow blade lift assembly with a mechanism affording the attachment and detachment of the snowplow blade lift assembly to the vehicle. The vehicle owner may wish to remove the snowplow blade, for example, during times when the need for plowing snow arises infrequently or when the vehicle is used for purposes other than for plowing snow.

Conventional detachable snowplow blade lift assemblies often provide a mounting frame permanently attached to the frame of the vehicle, a plow blade attached to an A-frame which, in turn, can be releasably connected to the mounting frame, and a lift mechanism for the A-frame. The mounting frame of various such snowplow blade lift assemblies is located on the front end of the vehicle generally behind the vehicle's bumper. The A-frame with the attached plow is generally removable from the vehicle, but most commonly the lift mechanism, usually a relatively heavy hydraulic lift unit, remains on the vehicle. Leaving the hydraulic lift unit on the vehicle, when the remainder of the plow assembly is removed, extends exposure of the lift unit to the elements and to possible damage. In addition, the permanently mounted, relatively heavy lift unit places the front of the vehicle under additional loading and can reduce the operational life of the suspension of the vehicle. Also, leaving the relatively heavy hydraulic unit on the vehicle can reduce the fuel efficiency of the vehicle.

There has been proposed assemblies wherein the hydraulic lift unit can be removed from the vehicle upon detachment of the plow and wherein the positions of the plow assembly or support therefore remaining on the vehicle are located substantially behind the bumper. Examples of such detachable snowplow blade lift assemblies are illustrated in U.S. Pat. No. 4,279,084 which issued to Low et al. on Jul. 21, 1981; and U.S. Pat. No. 4,439,939 which issued to Blau on Apr. 3, 1984. These prior proposals, however, have been relatively complicated and/or required numerous assembly and disassembly steps and involved numerous separate parts.

Also, when plowing snow, it is sometimes desirable to push the plowed snow into a pile and to "stack" snow on top of the pile or into a bank of snow. In order to stack snow, the A-frame of the snowplow assembly must be free to pivot upwardly relative to the vehicle so that the snowplow blade attached to the A-frame can rise up the slope of the snow bank. A problem with prior conventional detachable snowplow blade lift assemblies is that the mounting frames and components supported thereby are located in a position which interferes with the free upward movement of the A-frame, thereby diminishing the capacity of the snowplow blade lift assembly to stack snow.

2

Another problem associated with known snowplow blade lift assemblies is that the attachment and detachment of the assembly to the vehicle can require lifting of the A-frame and the connection of various elements of the snowplow blade lift assembly to a mounting frame. Such lifting, attachment and detachment of the snowplow lift assembly can be cumbersome and difficult.

Accordingly, it is an object of the present invention to provide a detachable snowplow blade assembly, plow, A-frame and lift assembly, which can be attached and detached from the front of a vehicle as a single unit.

It is another object of the present invention to provide a snowplow blade lift assembly that does not require a relatively heavy mounting frame to be permanently attached to the vehicle.

It is another object of the invention to provide a snowplow blade lift assembly which can be attached and detached from a vehicle without cumbersome manual lifting of the A-frame.

A more specific object of this invention is to provide a detachable plow, A-frame and lift assembly which, when detached, removes virtually all structural elements forward of the vehicle's bumper.

It is another object of the invention to provide a snowplow blade lift assembly having the above desirable characteristics and as well as the capacity to stack snow.

SUMMARY OF THE INVENTION

For the achievement of these and other objects, the present invention provides a detachable snowplow blade lift assembly including a mount frame permanently connected to the vehicle frame. A snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame is connected to the mount frame for pivotal movement about a pivot axis. A lift frame assembly is pivotally connected to the A-frame for pivotal movement about the pivot axis and includes, as a part thereof, a lift actuator mechanism for raising and lowering the A-frame and snowplow. The snowplow blade lift assembly also includes mounting means for releasably connecting the A-frame and the lift frame as a unit to the vehicle for pivotable relative movement about the pivot axis between the A-frame and the vehicle and the lift frame. Provision of an A-frame mount affording pivotal movement of the A-frame and the lift frame about a common pivot axis allows the snowplow blade lift assembly to be attached to, and detached from, the mounting frame as a unit and also allows the A-frame and plow blade to pivot relative to lift frame assembly during the plowing of snow.

More particularly, the mount frame is located generally behind the bumper. The mount frame has a substantially unitary construction and is adapted to be releasably connected to the forwardly extending A-frame. The mount frame transfers loads resulting from the lifting and lowering of the snowplow assembly and *resulting* from the plowing and stacking of snow from the A-frame and from the lift frame to the vehicle frame. The snowplow assembly includes mounting means for pivotally connecting the A-frame to the mount frame so that the A-frame and the associated snowplow blade can be pivoted *relative to the mount frame* about a generally horizontally extending pivot axis. The lift frame is pivotally connected to the A-frame in a manner so that the lift frame is pivotable relative to the A-frame about a horizontally extending pivot axis which is coaxial with the A-frame pivot axis. The lift frame is also selectively connectable to the mount frame on the vehicle so that the lift frame can be secured to the vehicle when the

Re. 35,700

3

A-frame is attached to the vehicle while remaining pivotable relative to the A-frame.

The snowplow assembly affords removal of the A-frame and the lift frame with the lift actuator from the mounting frame assembly as a unit so that, when the plow assembly and lift frame assemblies are removed, the vehicle forward of the bumper is unencumbered with apparatus extending beyond the bumper for supporting the snowplow blade. Since the lift actuator and the lift frame remain with the A-frame when the A-frame is removed from the vehicle, the lift actuator need not be disconnected from the A-frame when the A-frame is removed from the vehicle. The mounting means for attaching and detaching the snowplow blade assembly from the vehicle as a unit and the construction and arrangement of the components of the blade assembly also facilitates attachment and detachment of the snowplow blade assembly and facilitates storage of the snowplow assembly as a unit.

The snowplow blade lift assembly also provides an A-frame mount design having the capacity to stack snow. The lift frame is pivotable relative to the A-frame and supports the lift actuator mechanism in an elevated position which affords a range of free upward movement of the A-frame necessary for the stacking of snow. While the lift frame remains pivotable relative to the A-frame, the lift frame, during plowing, is fixed to the vehicle so that lights and other accessories which may be mounted on the lift frame remain fixed relative to the vehicle during plowing and during stacking of snow.

The A-frame also includes a support stand for supporting the A-frame in a generally horizontal position when the A-frame is detached from the vehicle, or is in the "blade-off" position. The support stand also can be used to adjust the height of the A-frame when mounting the snowplow assembly on the mount frame. More particularly, the support stand is pivotally connected to the A-frame for rotation between a generally horizontal "blade-on" storage position and a vertical "blade-off" support position. The support stand can be connected to the lift frame which can be used as a lever to adjust the vertical position of the A-frame with respect to the mounting frame. The support stand also includes an arrangement for selectively preventing and affording rotation of the lift stand so that the snow plow assembly can be safely stored without tipping. The provision of a snowplow blade assembly having a support stand which can be selectively pivotally rotated to support the A-frame and having a mechanism to adjust the height of the snowplow assembly affords relatively simple attachment and detachment of the snowplow assembly without manual lifting of the A-frame.

Thus, it is a principal feature of the present invention to provide a snowplow blade support and lift that can be removed from the vehicle as a unit leaving the forward end of the vehicle free of structure forward of the vehicle's bumper.

It is another principal feature of the present invention to provide a snowplow blade assembly that can be attached and detached to the vehicle in a simple manner without cumbersome [manually] manual lifting of the snowplow blade assembly.

It is another principal feature of the present invention to provide a snowplow blade assembly having the capacity to stack snow and providing a lift stand which, during plowing, is fixed to the vehicle.

Various other features and advantages of the invention will become apparent to those skilled in the art upon review of the following detailed description, claims and drawings.

4

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of a first alternative embodiment of a detachable snowplow blade lift assembly embodying the invention and in the "blade-off" position.

FIG. 2 is a side elevational view of the assembly shown in FIG. 1 and in the "blade-on" position.

FIG. 3 is a side view of a portion of the assembly illustrated in FIG. 1.

FIG. 4 is a front view of the portion illustrated in FIG. 3.

FIG. 5 is a cross-sectional view taken along line 5—5 in FIG. 4.

FIG. 6 is a second alternative embodiment of a detachable snowplow blade lift assembly embodying the invention.

FIG. 7 is a side view of a portion of the embodiment illustrated in FIG. 6.

FIG. 8 is a front view of the portion illustrated in FIG. 7.

FIG. 9 is a top view of the portion illustrated in FIG. 8.

FIG. 10 is a cross-sectional view taken along line 10—10 in FIG. 1.

FIG. 11 is a cross-sectional view taken along line 11—11 in FIG. 1.

Before one embodiment of the invention is explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced or being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Illustrated in the drawings is a detachable snowplow blade lift assembly 10 embodying the invention. The assembly 10 is adapted to be mounted on the front of a vehicle, such as a pick-up truck, having a conventional frame. In the embodiment of the [invention] snowplow blade lift assembly 10 shown in [FIG. 1] FIGS. 1-5, 10 and 11, the vehicle frame includes a pair of side members 12 (only one shown) and a bumper 14 located at the front end of the vehicle and supported in front of the side members 12.

The detachable snowplow blade lift assembly 10 includes a mounting frame assembly 16 which is preferably permanently fixed to the vehicle. A snowplow assembly 18 including a snowplow blade 20 is connectable to the mounting frame assembly 16 through an A-frame 22 which extends forwardly from the vehicle. A lift frame assembly 24 is pivotally connected to the A-frame 22 and is releasably connectable to the mounting frame assembly 16.

In general, mounting frame assembly 16 comprises a unitary structure fixed to the frame of the vehicle and located behind bumper 14. Mounting frame assembly 16 is connected to the A-frame 22 and to the lift frame assembly 24 [to transfer] for transferring the loads created by carrying the snow plow assembly 18, by lifting and lowering plow blade 20, and by plowing and stacking snow from the A-frame 22 and lift frame assembly 24 to the vehicle frame.

More particularly, in the first alternative embodiment shown in FIGS. 1-5, the mounting frame assembly 16 includes a laterally extending mount frame 26 that is connected at multiple points to the vehicle frame. The vehicle frame supports the mounting frame assembly 16 such that

Re. 35,700

5

the mounting frame assembly 16 is suspended in substantial part below the vehicle frame and is located immediately behind bumper 14. Mount frame 26 includes (FIGS. 3, 4) an upper box section 28 extending laterally between the side members 12 (not shown in FIGS. 3 and 4) and a pair of laterally spaced-apart mount frame legs 30 which are fixed at their upper ends to the opposite ends 31 of box section 28 and which extend downwardly. The mount frame 26 also includes, on each of the opposite ends 31 of box section 28, mounting plates 32 which are adapted to be fixed in a conventional manner to side members 12 at a first point of connection. The mount frame 26 also includes a centrally located mount frame clevis 34 which is fixed to the box section 28 and [extending] which extends therefrom generally upwardly and forwardly [over]. As shown in FIG. 1, the clevis 34 has a distal end located adjacent the upper surface of the bumper 14. The box section 28 transfers loads applied to the mount frame clevis 34 to the side members 12 which can result in torsional stresses on the box section 28. Accordingly, the construction of box section 28 should be designed to accommodate these torsional stresses.

The mounting frame assembly 16 also includes (FIGS. 3-5) a spreader element 36 which is located below and behind bumper 14 and which is fixed to the mount frame 26. The spreader element 36 includes a laterally extending spreader bar 38 having opposite ends 39. The spreader element 36 also includes a pair of spreader legs 40 which extend upwardly from respective opposite ends 39 of the spreader bar 38. The spreader legs 40 are (FIG. 5) fixed by fasteners to the lower ends of the mount frame legs 30 to form with the mount frame 26 (FIG. 4), a generally rectangular, rigid unit 41 wherein the spreader bar 38 and box section 28 form the long, horizontal sides of the unit and the spreader legs 40 and mount frame legs 30 form the short, vertical sides of the unit. As best shown in FIG. 2, the unit 41 formed by the interconnected box section 28 and spreader element 36 is located between and, in substantial part, below the mounting plates 32 which define the first point of connection between the mounting frame assembly 16 and the vehicle. Preferably the spreader legs 40 have (FIG. 3) a plurality of bolt holes 43 therethrough so that the vertical distance between the spreader bar 38 and the box section 28 can be adjusted to accommodate various vehicle frames.

The spreader bar 38 supports on its forward surface adjacent each opposite end 39 a forwardly extending clevis or A-frame mounting lug 42. The A-frame mounting lugs 42 are fixed to the spreader bar 38 by welding or, as shown in FIGS. 7-9, by releasable fasteners 44. The mounting lugs 42 comprise a pair of spaced-apart vertical plates 45, each of which have extending therethrough a hinge pin hole 47 and are arranged on the spreader bar 38 so that the hinge pin holes 47 are coaxially aligned on a generally horizontal pivot axis 46.

The mounting frame assembly 16 also includes a thrust frame 48 extending rearwardly and upwardly from the spreader element 36 to a second point of connection with the side members 12 of the vehicle frame. In the embodiment illustrated in FIGS. 3-5, the thrust frame 48 includes a laterally extending cross bar 50 having opposite ends 51 each of which support a mounting block 52. As shown in FIG. 1, the mounting blocks 52 are conventionally fixed to the side members 12 at the second point of connection by means of fasteners 53 shown as a nut and bolt assembly. A pair of thrust bars 54 extend forwardly from the cross bar 50 and are connected by a nut and bolt assembly 55 to the spreader 36. Preferably, and as shown in FIG. 5, the thrust bars 54, spreader legs 40 and mount frame legs 30 are all connected by the same nut and bolt assembly 55.

6

Because the spreader element 36 extends from the box section downwardly and rearwardly below the side members 12, and because the thrust bars 54 extend rearwardly from below the side members 12 to the second point of connection between the vehicle and mounting frame assembly 16, the mounting frame assembly 16 provides a mounting frame having a first point of attachment to the vehicle frame and first and second portions extending rearwardly and forwardly of the first point of attachment; the first portion extending to a second point of attachment to the vehicle located rearwardly of the first attachment point.

FIGS. 6-9 illustrate a [mount] mounting frame assembly 56 which is second alternative embodiment of [mount] mounting frame assembly 16 and which is arranged to be mounted on a vehicle having a frame including a centrally located, longitudinally extending frame member 57. Similar to the first alternative [mount] mounting frame assembly 16, [mount] mounting frame assembly 56 comprises a unitary, rigid structure fixed to the frame of the vehicle. Also similar to the first alternative mounting frame assembly 16, the mounting frame assembly 56 is substantially entirely located rearwardly of the front of the vehicle's bumper. When the snowplow assembly 18 is removed from the mounting frame assembly 56, the vehicle is left unencumbered by structure forward of the bumper. The [mount] mounting frame assembly 56 includes a laterally extending box section 28. Extending outwardly from each opposite end 31 of box section 28 are respective mounting plates 32, each having a forward facing surface and having an upwardly facing surface which is adapted to be fixed in a conventional manner to the vehicle chassis at a first connection point. The [mount] mounting frame assembly 56 also includes A-frame mounting lugs 42 which are fixed to [forward] the forward facing surface of mounting plates 32. Preferably, as shown in FIGS. 7 and 8, the mounting lugs 42 are fixed to mounting plates 32 by the fasteners 44.

Mounting frame assembly 56 also includes a rearwardly extending thrust member 58 which extends rearwardly from the center of the box section 28 and which, at its rearward end, is in the form of a mounting plate 60 adapted to be fixed to the centrally located vehicle frame member 57 at a second connection point.

The mounting frame assembly 56 also includes (FIG. 8) a forwardly opening socket 62 on the box section 28 intermediate the opposite ends 31. Socket 62 is formed by a pair of spaced-apart forwardly extending vertical plates 63 and a pair of spaced-apart, forwardly extending horizontal plates 64 [and]. For reasons discussed below, the socket 62 is adapted to receive [one] a first leg 65 of an L-shaped hitch arm 66. The hitch arm 66 (FIGS. 6 and 7) is removably connected to [mount] mounting frame 56 by means of a pin connection whereby a hitch arm pin 67 extends through the vertical plates 63 and through the first leg 65. The other leg 68 of hitch arm 66 comprises a pair of spaced-apart plates defining a center link clevis 69 that extends from the forward end of leg 65 forward of bumper 14 and extends generally upwardly. As best illustrated by FIG. 6, the A-frame mounting lugs 42 and the socket 62 are located below and rearwardly of the front of the bumper 14. Accordingly, when the hitch arm 66 is removed from the socket 62, such as when the snowplow assembly 18 is removed from the mounting frame assembly 56, the entirety of the mounting frame assembly 56 is located rearwardly of the bumper 14 and is located substantially below the bumper 14. The mounting frame assembly 56 thus also provides a mounting frame that is fixed to the vehicle at a first connection point, has a first portion extending rearwardly below the vehicle frame to a

Re. 35,700

7

second connection point, and has a second portion extending forwardly from the first connection point below and forwardly of the vehicle bumper.

The construction of the mounting frame assembly 56 is particularly advantageous in that it can be fixed to the underside of a vehicle frame and otherwise completely installed without the necessity of removing the bumper from the vehicle. In addition, when the snowplow assembly 18 and hitch arm 66 are removed from the mounting frame assembly 56, the entire mounting frame assembly 56 remaining on the vehicle lies below the plane defined by the upper surface of the bumper and lies behind the plane defined by the forward surface of the bumper.

The snowplow assembly 18 is releasably connectable to either the mounting frame assembly 16 or alternatively to the mounting frame assembly 56. FIG. 1 illustrates the snowplow assembly 18 in the "blade-off" position wherein the snowplow assembly 18 is detached from the vehicle. FIGS. 2 and 6 illustrate the snowplow assembly 18 in the "blade-on" position wherein the snowplow assembly 18 is respectively connected to either the mounting frame assembly 16 or the mounting frame assembly 56. The construction of the A-frame 22 need not be modified for use of the A-frame 22 with the alternative mounting frame assemblies 16, 56. Accordingly, with respect to the A-frame construction, reference will be made only to mounting frame 16 with the understanding that exceptions to the compatibility of the A-frame 22 with both mounting frame assemblies 16 and 56 will be expressly noted. The A-frame 22 comprises (FIGS. 1, 11) a pair of side members 70 each having forward and rearward ends 72, 74. The rearward ends 74 of the side members 70 are generally laterally spaced-apart and the forward ends 72 are closely-spaced and are joined by (FIG. 1) an A-frame apex plate 75. A pair of A-frame mounting plates 76 extend generally vertically from the upper surfaces of the respective side members 70 adjacent the respective rearward ends 74. The A-frame mounting plates 76 have a portion extending rearwardly of the rearward ends 74 of side members 70 and are arranged so that they can be moved into registry between the vertical plates [47] 45 of the A-frame mounting lugs 42. Each of the A-frame mounting plates 76 have therethrough a hinge pin hole 78. The hinge pin holes 78 are coaxially aligned and can be moved into alignment with the hinge pin holes 47 in the A-frame mounting lugs 42 so that the respective hinge pin holes 47, 78 in the A-frame mounting lugs 42 and plates 76 are coaxially aligned on the pivot axis 46 and are adapted to receive (FIGS. [1,] 2, 6 and 11) a removable hinge pin 80. A pair of hinge pins 80 can be inserted into the aligned hinge pin holes 47, 78 to join the mounting lugs 42 and mounting plates 76 to afford pivotal rotation [between] of the A-frame 22 [and] relative to the mounting frame assembly 16 about the pivot axis 46.

The A-frame 22 also includes (FIGS. 10, 11) a laterally extending base member 81 supported by the rearward ends 74 of the A-frame side members 70. A pair of lift frame clevises 82 are located on the rearward facing surface of the base member 81 and are located [between the] inwardly of the pair of A-frame mounting plates 76. Each lift frame clevis 82 has therethrough a bolt hole 84 and each clevis 82 is arranged so that bolt holes 84 are coaxially aligned with pivot axis 46 and with hinge pin holes 78 in the A-frame mounting plates 76. [The] For reasons discussed below, the A-frame 22 also includes (FIG. 11) a cross-bracket 86 which extends laterally between the A-frame side members 70 [and], which is located forward of the base member 81 and which is located rearward of the apex plate 75. The A-frame 22 also includes a support stand bracket 88 comprising a pair

8

of spaced-apart bracket plates 89 extending between the cross-bracket 86 and the base member 81. As shown in FIG. 11, the forward ends of the plates 89 flare outwardly laterally [at] beneath the cross-bracket 86.

The snowplow assembly 18 also includes support stand means 90 for supporting the snowplow assembly 18 in the "blade-off" position so that the side members 70 are substantially horizontal. The support stand means 90 includes the stand bracket 88 [includes] and a pivot pin 92 fixed to, and extending between the bracket plates 89. The bracket 88 also includes a center pin hole 94 that is located in the bracket plates 89 between the cross-bracket 86 and the pivot pin 92 [and]. The bracket also includes a first storage pin hole 96 that is located rearward of the pivot pin 92 and forward of base member 81. The support stand means 90 also includes a support stand 98 having a leg 99 located between the bracket plates 89. The support stand 98 includes, at one end of leg 99, a generally dish-shaped base 100 and, at the other, free end of leg 99, a plurality of pin holes 101 including a second storage pin hole 102. Leg 99 has therethrough an elongated slot 106 surrounding the pivot pin 92, thereby affording pivotal and translational movement of leg 99 relative to the support bracket 88 [and affording rotation of the]. The support stand 98 is moveable between (FIG. 1) a "blade-off" support position wherein support leg 99 is vertically oriented and the base 100 is on the ground and (FIG. 2) a "blade-on", storage position wherein the support stand 98 is generally horizontal. Leg 99 also has therethrough (FIG. 1) a center pin hole 107 located adjacent one end of slot 106.

When the support stand 98 is in the horizontal "blade-on" storage position, the storage pin hole 102 in the leg 99 aligns with the first storage pin hole 96 in the support bracket 88 so that a removable storage pin 108 can be inserted therethrough to retain the support stand 98 in the storage position. When the snowplow assembly 18 is attached to the vehicle and the support stand 98 is in the "blade-on" position, leg 99 is substantially received between the plates 89 of the bracket 88 and the base 100 is [received between the outwardly flared forward ends of plates 89] held in a raised position forward of the cross bracket 86 so that base 100 does not interfere with plowing.

When the snowplow assembly 18 is in (FIG. 1) the "blade-off" position, the support stand 98 can be moved to the vertical support position so that the base 100 rests on the ground. In a manner described below, the A-frame side members 70 can be moved upwardly relative to support stand 98 so that pivot pin 92 translates to the upper end of slot 106 and so that center pin holes 94 and 107 in the bracket 88 and leg 99 respectively are aligned. A center pin 109 can then be inserted into the center pin holes 94 and 107 to prevent movement of leg 99 relative to the A-frame 22 and to prevent tipping of the support stand 98 and the snowplow assembly 18.

The lift frame assembly 24 is permanently pivotally mounted on the A-frame 22 and can be fixed to the mounting frame assemblies 16, 56. The lift frame assembly 24 supports a lighting fixture 160 including lights 149 and brackets 148. Brackets 148 are attached to side members 112 and cross member 124 of the lift frame assembly 24. The lift frame assembly also includes actuator means 110 for pivotally raising and lowering the A-frame 22 and the snowplow blade 20 about the pivot axis 46. [Lift] In general, and as more specifically discussed below, when the lift frame assembly 24 is fixed to one of the mounting frame assemblies 16, 56, the lifting frame assembly supports the lights 149 in fixed position relative to the vehicle and affords the raising

and lowering of the snowplow assembly 18. Also, the frame assembly 24 is pivotally connected to the A-frame base member 81 so that the snowplow assembly 18 and the lift frame assembly [22] 24 can be removed from the vehicle as a unit, the actuator means 110 and the lighting fixture 160 also being removed as part of that unit.

Lift frame assembly 24 includes (FIGS. 1, 10, 11) and 10) a pair of goose neck side members 112 each having a lower portion 113 pivotally connected to a respective one of the lift frame clevises 82. The lower portion 113 of each side member 112 curves forwardly and upwardly from the base member 81 to an upper portion 114 which extends in front of and vertically past the bumper 14. The lower portions 113 of each side member 112 have fixed thereto a lift frame mounting [plane] plate 115 having a bolt hole 116 there-through so as to align with the bolt holes 84 in the lift frame clevises 82 and so as to be coaxially aligned with pivot axis 46. Bolt 118 (shown only in FIG. 11) pivotally connects lower portions 113 of side members 112 and base member 81 of A-frame 22 so that the lift frame assembly 24 [and the A-frame 22] is pivotable about the pivot axis 46 [and is pivotable] relative to the A-frame 22 and relative to the mounting frame assembly 16 [about pivot axis 46].

The lift frame assembly 24 also includes a plurality of cross members extending between the goose neck side members [120] 112. Depending upon whether the first alternative embodiment of the [mount] mounting frame assembly 16 is used, or whether the second alternative embodiment of the [mount] mounting frame assembly 56 is used, the lift frame assembly 24 can have various arrangements of cross members. For example, FIGS. 1 and 10 illustrate a first alternative embodiment of the lift frame assembly 24 which is adapted for use with the first alternative embodiment of the [mount] mounting frame assembly 16 (shown in FIGS. 1-5). FIG. 6 illustrates a second alternative embodiment of the lift frame assembly 24 which is adapted for use with the second alternative embodiment of the [mount] mounting frame assembly 56 (shown in FIGS. 5-8). As illustrated, however, both disclosed alternative embodiments of lift frame assembly 24 include a support stand cross member 123 extending laterally between lower portions 113 of the goose neck side members [120] 112, an upper cross member 124 extending laterally between the upper portions 114 of the goose neck side members 112 and an intermediate cross member 126 extending laterally between the goose neck side members 112 between the support stand cross member 123 and the upper cross member 124.

The support stand cross member 123 supports (FIGS. 1, 6, 10) a [forwardly extending] support stand clevis 128 which is centrally located between the goose neck members [120] 112 and which is connectable with the upper, free end of the support leg 99 when the support stand 98 is in the vertical "blade-off" position. The support stand clevis 128 comprises [(FIG. 10)] a pair of spaced-apart plates 130 (FIG. 10) each having therethrough a storage pin hole 132 (FIG. 2) which can be aligned with one of the holes 101 in the support stand 98. [When] As best shown in FIG. 1, when in the "blade-off" position, support stand 98 can moved relative to the A-frame 22 virtue of the slot 106/pin 92 connection and can be moved so that the free end of [lug] support leg 99 is located between clevis plates 130 and so that one of storage pin holes 101 [align] aligns with storage pin hole 132. Support stand 98 can then be fastened to the support stand clevis 128 in its "blade-off" position by inserting a storage pin 131 into the aligned storage pin holes 101, 132. As shown in FIG. 6, when the A-frame 22 is

connected to the mounting frame 16 and when the support stand 98 is pinned to the [lift frame 24] support stand clevis 128, base 100 of the support stand 98 may be spaced from the ground.

[The] In the embodiment of the lift frame assembly 24 shown in FIGS. 1, 2 and 10, the intermediate cross member 126 supports thereon a centrally located actuator mounting clevis 134 that opens generally upwardly and also supports thereon a [rearwardly extending] hitch clevis 135 and a rearwardly extending mount frame link 136. When the A-frame 22 is fixed to the [mount] mounting frame assembly 16, the lift frame assembly 24 can be pivoted rearwardly (clockwise in FIG. 1) from its "blade-off" storage position toward the vehicle and toward [mount] the mounting frame assembly 16 to (FIGS. 2, 6) a "blade-on" position wherein the mount frame link 136 can be connected to the mount frame clevis 34 or, in the case of mount frame assembly 56, to the center link clevis 69 on the hitch arm 68 by a hitch pin 137 to prevent relative movement between the lift frame assembly 24 and the mounting frame assembly 16.

In the embodiment of the lift frame assembly 24 shown in FIG. 6, the intermediate cross member 126 and the lower cross member 123 support a hitch clevis 135 extending therebetween. A mounting frame link 136 extends rearwardly from the hitch clevis 135.

[The] As shown in FIGS. 1, 6 and 10, upper cross member 124 pivotally supports thereon a lift arm support lug 138 and a pivotable lift channel or arm 140 having a first end 141 supported by the lift arm support lug 138 and a second, forward end 142 extending generally forward of the upper cross member 124. The pivotal connection of the upper cross member 124 and the lift arm 140 affords relative pivotal movement therebetween about (FIG. 10) a generally horizontal axis 143. The forward end 142 of the lift arm 140 is in the form of a chain hook and is connected to a chain 144 extending between the chain hook and the A-frame apex plate 75.

The lift frame assembly 24 also includes the lighting fixture 160. The lighting fixture 160 includes (FIG. 10) a pair of headlamp brackets 148 which extend laterally outwardly and upwardly from the upper portions 114 of respective goose neck side members 112. Each headlamp bracket 148 supports a respective head lamp 149. As mentioned above, when the lift frame assembly 24 is mounted on one of the mounting frame assemblies 16, 56, the lighting fixture 160 is fixed to the vehicle in a position over the snowplow blade 20. Such positioning and support of the lighting fixture 160 provides a lighting fixture 160 that is operational during plowing of snow and that is removable from the vehicle as a unit with the snow plow assembly 18. It is operational in the sense that the lights are above the plow in both its upper position (travel/stacking) and lower position (plowing) and thus the plow blade does not interfere with the light rays. Also, the lights being fixed relative to the vehicle, their orientation is not affected by movement of the plow blade.

The lift frame assembly 24 also includes a conventional hydraulic actuator 146 having a lower end pivotally supported by the actuator mounting lug 134 and having a piston rod 148 pivotally connected with the lift arm 140 so that extension of the piston rod 148 rotates (or raises) the lift arm 140 about axis 143 and causes rotation, by the chain connection, of the A-frame 22 and the plow blade 20 about the pivot axis 46. While conventional constructions for actuator means 146 can be used, U.S. Pat. No. 4,999,935 entitled "Hydraulic System and Apparatus for Use with Vehicle Accessory Units" which issued to Simi, et al, on Mar.

Re. 35,700

11

19, 1991 illustrates a preferred construction of the actuator means 146. The hydraulic actuator means 146 remains fixed to the lift frame assembly 24 and preferably provides a source of hydraulic pressure so that detachment of the snowplow assembly 18 and lift frame assembly 24 does not require disconnection of any hydraulic lines. Rather, disconnection of the actuator means 146 and the lighting fixture 160 from the vehicle requires only the disconnection of [a pair of electrical connections 149. While conventional constructions for actuator means 146 can be used, U.S. Pat. No. 4,999,935 entitled "Hydraulic System and Apparatus for Use with Vehicle Accessory Units" which issued to Simi, et al, on Mar. 19, 1991 illustrates a preferred construction of the actuator means 146.] *an electrical connection 147.*

The detachable snowplow blade lift assembly 10 thus provides A-frame mounting means for releasably and pivotally connecting the A-frame 22 and the mounting frame assembly 16 for relative pivotal movement therebetween about a generally horizontally extending pivot axis 46 and lift frame mounting means for connecting the lift frame assembly 24 to the A-frame 22 for selective relative pivotal movement about the pivot axis 46 and for releasably fixing the lift frame assembly 24 relative to the mounting frame assembly 16.

The snowplow assembly 18 and lift frame assembly 24, with the actuator means 110 and lighting fixture 160, can be attached as a unit to the vehicle by the following steps: first, the vehicle can be moved into close proximity to the rearward ends 74 of the A-frame 22 so that the A-frame mounting lugs 42 and the A-frame mounting plates 76 are registered. Alternatively, the snowplow assembly 18 can be pushed into position at the front of the vehicle without risk of tipping the A-frame 22 because of the locking engagement of the center pin 109, the support stand 98 and the support stand bracket 88. Once the mounting plates 76 are registered between the respective mounting lugs 42, the center pin 109 can be removed from the support stand 98 and the support stand bracket 88 to afford limited translation of support stand 98 (by virtue of the slot 106/pin 92 arrangement) relative to pivot pin 92. Due to the substantial weight of actuator means 110, the center of gravity of the lift frame assembly 24 when in its storage position is located forward of the support stand so that the lift frame assembly has a tendency to rotate forwardly (counter-clockwise in FIG. 1). Due to the pin connection of the lift frame assembly 24 and the A-frame 22 and due to the pinned connection of the lift frame clevis 128 and the support stand 98, the weight of the A-frame 22 is borne by the pin 131 and by the support stand 98. The weight of lift frame assembly 24 pulls the A-frame upwardly about a center of rotation at the plow blade 20 so that pivot pin 92 moves to the top or to the upper end of slot 106.

The A-frame mounting plates 76 can be moved with respect to the A-frame mounting lugs 42 in order to vertically align the hinge pin holes 47, 78 by rotating the lift frame assembly 24 relative to the A-frame 22 about the pivot axis 46. Such rotation of the lift frame assembly 24 causes pivotal movement of A-frame side members 70 about a center of rotation at the plow blade 20 and causes nearly vertical movement of the rearward ends 74 of the side members 70. This resultant vertical displacement of the mounting plates 76 is possible by virtue of the pinned connection between the support stand clevis 128 and the upper end of support leg 99 and the slot 106/pin 92 relationship of the support stand 98 and the support stand bracket 89. By using the side members [120] 112 as a lever to rotate the lift frame assembly 24 rearwardly from its

12

"blade-off" storage position (clockwise in FIG. 1) the mounting plates 76 can be moved slightly rearwardly and downwardly (shown in phantom) to adjust the height of the A-frame 22 and to align the hinge pin holes 47, 78. When the hinge pin holes 47, 78 are aligned, a pair of hinge pins 80 are inserted to connect the mounting lugs 42 and the mounting plates 76 so as to pivotally connect the A-frame assembly 22 to the [mount] mounting frame assembly 16 for rotation therebetween about the pivot axis 46. Thus the snowplow blade lift assembly 10 includes lift stand means for alternatively selectively preventing and affording relative movement between the support stand and the A-frame to adjust the vertical position of the A-frame with respect to the mounting lugs 42.

The lift frame assembly 24 can then be connected to the [mount] mounting frame assembly 16. Since center pin 109 is removed from bracket 88, lift frame assembly 24 can freely rotate about the pivot axis 46 relative to the A-frame 22. The lift frame assembly 24 can be rotated rearwardly (clockwise in FIGS. 1, 2) to register the mount frame link 136 (FIG. 2) with, in the case of [mount] mounting frame assembly 16, the [mount] mounting frame clevis 34 or, in the case of [mount] mounting frame assembly 56 (FIG. 6), the center link clevis 69 on the forward end 68 of the hitch arm 66. When the holes in the mount frame link 136 and the mount frame clevis 34 or [hitch arm 68] center link clevis 69 are aligned, hitch pin 137 can be placed therethrough to fix the lift frame assembly 24 to the [mount] mounting frame assembly 16. Preferably, the center pin 109 for locking the support stand 98 in the "blade-off" position is also used as hitch pin 137 to fix the [mount] mounting frame link 136 and the [mount] mounting frame clevis 34 or hitch arm 68.

When, as shown in FIG. 6, the A-frame assembly 22 and lift frame assembly 24 are fixed to the [mount] mounting frame assembly 16, the support stand 98 can then be rotated from its vertical, "blade-off" position (FIG. [2] 1) to its horizontal "blade-on" position and held in place by the support stand pin 108 extending through the respective storage pin holes 96, 102 in the support stand bracket 89 and support leg 99. Preferably, the storage pin 131 which is used to connect the support stand 98 and the support stand clevis 128 is also used as storage pin 108 for securing the support stand 98 in the "blade-off" position. Last, the electrical connection 147 for the hydraulic actuator 110 and the lighting fixture 160 can be connected to a source of electric current in the vehicle in a conventional manner.

As shown in FIG. 2, the lift frame assembly supports the actuator mechanism 146 for raising and lowering the A-frame 22 and snowplow blade 20 about the pivot axis 46 in an elevated position above the bumper of the vehicle. Further, the goose neck side members 112 and the mount frame assembly 16 are located in close proximity to the bumper 14 and provide a range of free upward pivotal movement of the A-frame 22 about the pivot axis 46. Such a range of free movement (shown in phantom in FIG. 2) is desirable in order to provide a detachable snowplow blade lift assembly having the capacity to stack snow. Such a range of free movement also provides greater ground clearance for the plow blade 20 when the vehicle travels with the plow assembly in a raised position. In the disclosed embodiment, the A-frame 22 can pivot about pivot axis 46 to an upwardly rotated position approximately 40 degrees from horizontal, which range is limited by (FIG. 6) a pair of A-frame stops 150 located on the side members 112 in such a position so as to prevent damage to the actuator means 110 during stacking of snow and during travel with the snowplow assembly 18 in a raised position.

Re. 35,700

13

While capable of stacking snow, the disclosed snowplow assembly 18 also provides a lift frame assembly 24 which, when mounted on the vehicle, supports the lights 149 in fixed relation to the vehicle and which is connectable and disconnectable with the A-frame 22 from the mounting frame 16 as a unit. [Providing] The provision of a lift frame 24 which [is capable of supporting] supports the lights 149 so as to be permanently fixed to the snowplow assembly 18 and removable from the vehicle as a unit with the snowplow assembly is desirable [and providing]. In addition, the provision of a headlight [support] fixture 160 which is fixed relative to the vehicle during plowing is necessary for safe and efficient plowing of snow.

To remove the snowplow assembly 18 and lift frame assembly 24, with the lift actuator 110 and lighting fixture 160, as a unit from the mount frame assembly 16, the pinned connections described above can be released in reverse order.

In addition to ease of attachment and removal, the overall unit, plow blade, A-frame, lift frame assembly and lift actuator, as a result of the construction and arrangement of the component parts is particularly well adapted for storage as a unit.

Various other features of the invention are set forth in the following claims:

We claim:

1. A vehicle mounted snowplow blade assembly comprising

a vehicle having a frame member and a bumper,

a [mount] mounting frame fixed to the frame member and located generally behind the bumper,

a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,

a lift frame supported by the A-frame, and

mounting means for selectively connecting the A-frame to the mounting frame for pivotable movement about a generally horizontally extending pivot axis and for affording removal of the A-frame and the lift frame from the mounting frame as a unit so as to leave the [mount] mounting frame on the vehicle and behind the bumper.

2. A vehicle mounted snowplow blade lift assembly as set forth in claim 1 wherein the mounting means includes means for selectively connecting the lift frame and the [mount] mounting frame and wherein, when the lift frame and the [mount] mounting frame are connected, the A-frame is pivotable about said axis relative to the lift frame and the [mount] mounting frame.

3. A vehicle mounted snowplow blade lift assembly as set forth in claim 1 wherein said lift frame is supported by said A-frame for pivotable movement about said pivot axis, and wherein the mounting means includes means for selectively connecting the lift frame and the [mount] mounting frame.

4. A vehicle mounted snowplow blade lift assembly as set forth in claim 3 wherein the mounting means affords a range of free upward pivotal movement of said A-frame when said snowplow assembly is connected to said [mount] mounting frame.

5. A vehicle mounted snowplow blade lift assembly as set forth in claim 4 wherein the range of movement is approximately 40 degrees from horizontal.

6. A vehicle mounted snowplow blade lift assembly as set forth in claim 1 and further including actuator means supported by the lift frame for pivoting the snowplow assembly about the pivot axis to raise and lower said snowplow blade assembly.

14

7. A vehicle mounted snowplow blade lift assembly as set forth in claim 6 wherein the lift frame supports the actuator means above the bumper.

8. A vehicle mounted snowplow blade lift assembly as set forth in claim 1 wherein the mounting means affords removal of the A-frame and the lift frame from the vehicle so that the vehicle is substantially unencumbered by structural members in front of the bumper.

9. A vehicle mounted snowplow blade lift assembly as set forth in claim 1 wherein the snowplow assembly includes support stand means for supporting the A-frame in a generally horizontal position and, when the A-frame is not connected to the mounting frame, for selectively adjusting the vertical position of the snowplow assembly.

10. A vehicle mounted snowplow blade lift assembly as set forth in claim 9 wherein the support stand means includes a support leg pivotally supported by the A-frame and includes means for selectively and alternatively affording and preventing rotation of the support leg.

11. A vehicle mounted snowplow blade lift assembly as set forth in claim 10 wherein the lift frame is pivotally supported by the A-frame, and wherein the support stand means includes means for releasably connecting the support leg and the lift frame so that pivotal movement of the lift frame adjusts the vertical position of the A-frame.

12. A vehicle mounted snowplow blade lift assembly as set forth in claim 11 wherein the lift frame is supported by the A-frame for pivotal movement about the pivot axis.

13. A vehicle mounted snowplow blade assembly comprising

a vehicle frame,

a mounting frame connected to the vehicle frame,

a snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame,

A-frame mounting means for releasably and pivotally connecting the A-frame and the mounting frame for relative pivotal movement therebetween about a generally horizontally extending pivot axis,

a lift frame,

lift frame mounting means for connecting the lift frame and the A-frame for selective relative pivotal movement therebetween about the pivot axis and for releasably connecting the lift frame to the mounting frame, and

actuator means on the lift frame for selectively causing pivotal movement of the A-frame about the pivot axis relative to the [mount] mounting frame.

14. A vehicle mounted snowplow blade lift assembly as set forth in claim 13 wherein the vehicle frame includes a bumper, wherein the mounting frame is located substantially behind the bumper, and wherein the A-frame mounting means and the lift frame mounting means afford removal of the snowplow assembly and the lift frame from the vehicle so as to leave the front of the vehicle forward of the bumper unencumbered and so as to leave the [mount] mounting frame behind the bumper.

15. A vehicle mounted snowplow blade lift assembly as set forth in claim 14 wherein the lift frame is supported by the A-frame and extends upwardly therefrom in front of the bumper.

16. A vehicle mounted snowplow blade lift assembly as set forth in claim 15 wherein the lift frame supports the actuator means above the bumper.

17. A vehicle mounted snowplow blade lift assembly as set forth in claim 13 wherein the A-frame mounting means and the lift frame mounting means afford removal of the snowplow assembly and the lift frame from the vehicle as a unit.

Re. 35,700

15

18. A vehicle mounted snowplow blade lift assembly as set forth in claim 17 wherein the A-frame mounting means affords a range of free upward pivotal movement of the snowplow assembly about the pivot axis.

19. A vehicle mounted snowplow blade lift assembly 5 comprising

a vehicle having a frame member, a mount frame supported by the frame member, the mount frame having thereon a mounting lug,

a snowplow assembly including an A-frame, a snowplow blade supported by the A-frame, A-frame mounting means for selectively connecting the A-frame and the mount frame, and a support stand pivotally connected to the A-frame for rotation between a blade-on position wherein the support stand is generally parallel to the A-frame and a blade-off position wherein the support stand is generally vertical and supports the A-frame in a generally horizontal position, and

lift frame means for alternatively selectively preventing and affording relative movement between the A-frame and [of] the support stand to adjust the vertical position of the A-frame with respect to the mounting lug.

20. A vehicle mounted snowplow blade lift assembly as set forth in claim 19 wherein the A-frame mounting means includes means for pivotally connecting the A-frame and the mount frame for relative rotation therebetween about a generally horizontal pivot axis, wherein the lift frame means includes a lift frame pivotally supported on the A-frame and said support stand is releasably connectable to [the support stand] said lift frame.

21. A vehicle mounted snowplow blade lift assembly as set forth in claim 20 wherein, when the lift frame is connected to the support stand, rotation of the lift frame about the axis causes movement of the support stand relative to the A-frame.

22. A vehicle mounted snowplow blade lift assembly as set forth in claim 21 wherein the A-frame and the lift frame are pivotable about a common axis.

23. A vehicle mounted snowplow blade lift assembly as set forth in claim 22 wherein the lift frame supports actuator means for rotating the A-frame about the pivot axis.

24. A vehicle mounted snowplow blade lift assembly as set forth in claim 19 wherein the A-frame mounting means affords a range of free upward movement of the snowplow assembly.

25. A vehicle mounted snowplow blade lift assembly as set forth in claim 24 wherein the A-frame mounting means provides a pivotable connection between the mounting frame and the A-frame.

26. A vehicle mounted snowplow blade lift assembly as set forth in claim 25 wherein the range of movement is from horizontal to approximately 40 degrees from horizontal.

27. A snowplow blade assembly connected to a vehicle having a frame and a forward bumper and comprising a mounting frame having a first point of attachment to said vehicle frame,

said mounting frame including a first portion extending, relative to said vehicle, rearwardly of said first point of attachment to a second point of attachment to said vehicle frame, said mounting frame further including a second portion extending, relative to vehicle, forwardly of said first point of attachment, said first and second frame portions being located beneath said frame and said second frame portion extending forwardly beneath said bumper,

a snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame,

16

A-frame mounting means for releasably and pivotally connecting the A-frame and the mounting frame for relative pivotal movement therebetween about a generally horizontally extending pivot axis,

a lift frame,

lift frame mounting means for connecting the lift frame and the A-frame for selective relative pivotal movement therebetween about the pivot axis and for releasably connecting the lift frame to the mounting frame,

said lift frame including elongated support means extending from said A-frame upwardly and forward of said bumper to an upper end, and

actuator means on the lift frame for selectively causing pivotal movement of the A-frame about the pivot axis relative to the mounting frame.

28. The snowplow blade assembly of claim 27 wherein said elongated support means comprises

first and second vertically extending elongated members, and

means connecting said elongated members in laterally spaced relationship,

and wherein said actuator means is connected to said elongated support means between said elongated members.

29. The snowplow blade assembly of claim 27 wherein said elongated support means includes first and second vertically extending members, said first and second vertically extending members, relative to said bumper, bow outwardly and upwardly to a point generally in front of said bumper and then continue an extension upwardly from said point to a terminal end above said bumper.

30. The snowplow blade assembly of claim 27 wherein said mounting frame includes a link extending forwardly and upwardly relative to said bumper and also includes A-frame receiving means located below said link, said A-frame mounting means including said A-frame receiving means, and

including means connecting said link to said elongated support means above said A-frame receiving means.

31. The snowplow blade assembly of claim 30 wherein said link is located behind said bumper.

32. The snowplow blade assembly of claim 31 wherein said link is releasably connected in said mounting frame so that said link is selectively removable therefrom.

33. The snowplow blade assembly of claim 27 wherein the snowplow assembly includes support stand means for supporting the A-frame in a generally horizontal position and, when the A-frame is not connected to the mounting frame, for selectively adjusting the vertical position of the snowplow assembly.

34. The snowplow blade assembly of claim 27 wherein said elongated support means comprises

first and second vertically extending elongated members, and

said first and second vertically extending members, relative to said bumper, bow outwardly and upwardly to a point generally in front of said bumper and then continue an extension upwardly from said point to a terminal end above said bumper.

35. The snowplow blade assembly of claim 27 wherein said mounting frame includes a link extending forwardly and upwardly relative to said bumper and also includes A-frame receiving means located below said link, said A-frame mounting means including said A-frame receiving means, and

Re. 35,700

17

including means connecting said link to said elongated support means above said A-frame receiving means.

36. The snowplow blade assembly of claim 27 wherein the pivotal axis of said A-frame relative to said A-frame receiving means and the pivotal axis of said lift frame relative to said A-frame are co-axial.

37. A snowplow blade assembly connected to a vehicle having a frame and a forward bumper and comprising a mounting frame attached to said vehicle frame behind and beneath said bumper and including a portion extending forwardly beneath the level of said bumper, a snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame,

A-frame mounting means for releasably and pivotally connecting the A-frame and the mounting frame for relative pivotal movement therebetween about a generally horizontally extending pivot axis,

said mounting frame including a link extending forwardly and upwardly relative to said bumper and also including A-frame receiving means located below said link, said A-frame mounting means including said A-frame receiving means,

a lift frame,

said lift frame including elongated support means extending from said A-frame upwardly and forward of said bumper to an upper end,

lift frame mounting means for connecting the lift frame and the A-frame for selective relative pivotal movement therebetween and for releasably connecting the lift frame to the mounting frame, said lift frame mounting means including said link and said link being connected to said elongated support means above said A-frame receiving means,

said A-frame receiving means having a releasable connection to said A-frame and said link having a releasable connection to said elongated support means, and actuator means on the lift frame for selectively causing pivotal movement of the A-frame about the pivot axis relative to the mounting frame.

38. A vehicle mounted snowplow blade assembly comprising

a vehicle having a frame member and a bumper,

a mounting frame fixed to the frame member and located generally behind the bumper,

a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,

a light fixture supported by the A-frame and including a headlamp located above the snowplow blade, and

mounting means for selectively connecting the A-frame to the mounting frame for pivotable movement about a generally horizontally extending pivot axis and for affording removal of the A-frame and the light fixture from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

39. A snowplow blade assembly as set forth in claim 38 and further including actuator means supported by a lift frame for pivoting the snowplow blade assembly about the pivot axis to raise and lower the snowplow blade assembly.

40. A snowplow blade assembly as set forth in claim 38 wherein the lift frame includes a pair of upright members, each of which have a lower end connected to the A-frame and an upper end supporting the light fixture and wherein said upright members have a pivot connection to said A-frame co-axial with said pivot axis of said A-frame.

41. A snowplow blade assembly connected to a vehicle having a frame and a forward bumper and comprising

18

a mounting frame having a first point of attachment to said vehicle frame,

said mounting frame including a first portion extending, relative to said vehicle, rearwardly of said first point of attachment to a second point of attachment to said vehicle frame, said mounting frame further including a second portion extending, relative to vehicle, forwardly of said first point of attachment, said first and second frame portions being located beneath said frame and said second frame portion extending forwardly beneath said bumper,

a snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame,

A-frame mounting means for releasably and pivotally connecting the A-frame and the mounting frame for relative pivotal movement therebetween about a generally horizontally extending pivot axis,

an accessory frame supported by the A-frame, said accessory frame including at least one elongated support member extending from said A-frame upwardly and forward of said bumper to an upper end, and a headlamp supported by the upper end of the elongated support member.

42. The snowplow blade assembly of claim 41 wherein said headlamp is supported above the snowplow blade,

said at least one elongated support member, relative to said bumper, bows outwardly and upwardly to a point generally in front of said bumper and then continues an extension upwardly from said point to said upper end, and

wherein said elongated support member has a pivot connection to said A-frame co-axial with said pivot axis of said A-frame.

43. A snowplow blade assembly as set forth in claim 1 wherein the lift frame supports a light fixture in a position above the snowplow blade.

44. A snowplow blade assembly as set forth in claim 43 wherein mounting means affords removal of the A-frame, the lift frame, and the light fixture as a unit from the mounting frame.

45. A vehicle mounted snowplow blade assembly comprising

a vehicle having a frame member and a bumper,

a mounting frame fixed to the frame member and located generally behind the bumper,

a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,

a support frame connected to the A-frame, and

wherein the A-frame and the support frame are connected to the mounting frame for pivotable movement of the A-frame about a generally horizontally extending pivot axis and for affording removal of the A-frame and the support frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

46. A vehicle mounted snowplow blade assembly comprising

a vehicle frame member and a vehicle bumper,

a snowplow blade assembly including a first frame and a snowplow blade connected to said first frame,

mounting means for selectively connecting said first frame to said vehicle frame member for pivotable movement of said first frame and said snowplow blade relative to said vehicle frame member about a generally horizontally extending axis,

Re. 35,700

19

a second frame member,

means for connecting said second frame member to said vehicle, and

means connecting said second frame member to said first frame for pivotable movement therebetween about said horizontally extending axis so that when said second frame member is attached to said vehicle, said first frame member is pivotable relative to said vehicle with said second frame member remaining stationary relative to said vehicle and said first frame and does not interfere with the pivotal movement of said first frame member and said snowplow blade.

47. A vehicle mounted snowplow blade assembly as set forth in claim 45

wherein said support frame, when connected to said mounting frame, includes an extension in front of and above said bumper, and

including an actuator connected to said support frame and said A-frame to pivot said A-frame about said pivot axis.

48. A vehicle mounted snowplow blade assembly as set forth in claim 45 including a headlamp connected to said support frame and removable with said A-frame and said support frame.

49. A vehicle mounted snowplow blade assembly as set forth in claim 45 including a support stand connected to said snowplow blade assembly and extending therefrom for ground engagement to support said snowplow blade assembly when detached from said vehicle, said support stand connected to said snowplow blade assembly for movement to store said support stand when said snowplow blade assembly is attached to said vehicle.

50. A vehicle mounted snowplow blade assembly as set forth in claim 49

wherein said support stand is connected to said A-frame, and

including an adjustable connection of said support stand to said A-frame to selectively vary the position of said stand relative to said A-frame to vary the horizontal position of said snowplow blade assembly.

51. A vehicle mounted snowplow blade assembly as set forth in claim 45 wherein the snowplow blade assembly

20

includes a support stand for supporting the A-frame in a generally horizontal position and, when the A-frame is not connected to the mounting frame, for selectively adjusting the vertical position of the snowplow blade assembly.

52. A vehicle mounted snowplow blade assembly as set forth in claim 46

wherein said second frame member includes an extension in front of and above said bumper, and

including an actuator connected to said second frame member and said first frame member to pivot said first frame member about said horizontally extending axis.

53. A vehicle mounted snowplow blade assembly as set forth in claim 46 including a headlamp connected to said second frame member and removable with said first frame member and second frame member.

54. A vehicle mounted snowplow blade assembly as set forth in claim 46 including a support stand connected to said snowplow blade assembly and extending therefrom for ground engagement to support said snowplow blade assembly when detached from the vehicle, said support stand connected to said snowplow blade assembly for movement to store said support stand when said snowplow blade assembly is attached to the vehicle.

55. A vehicle mounted snowplow blade assembly as set forth in claim 54

wherein said support stand is connected to said first frame member, and

including an adjustable connection of said support stand to said first frame member to selectively vary the position of said stand relative to said first frame member to vary the horizontal position of said snowplow blade assembly.

56. A vehicle mounted snowplow blade assembly as set forth in claim 46 wherein the snowplow blade assembly includes a support stand for supporting the first frame member in a generally horizontal position and, when the first frame member is not connected to the mounting means, for selectively adjusting the vertical position of the snowplow blade assembly.

* * * * *

(12) **EX PARTE REEXAMINATION CERTIFICATE** (10379th)
United States Patent
Watson et al.

(10) **Number:** **US RE35,700 C1**

(45) **Certificate Issued:** **Nov. 3, 2014**

(54) **REMOVABLE SNOWPLOW ASSEMBLY WITH PIVOTABLE LIFT STAND**

(75) Inventors: **Gary E. Watson**, Mequon, WI (US);
James R. Doornek, Mequon, WI (US);
Thomas P. Fechter, Jackson, WI (US)

(73) Assignee: **Curtis Industries, LLC**, Worcester, MA (US)

Reexamination Request:

No. 90/013,073, Dec. 3, 2013

Reexamination Certificate for:

Patent No.: **Re. 35,700**
 Issued: **Dec. 30, 1997**
 Appl. No.: **08/566,277**
 Filed: **Dec. 1, 1995**

Related U.S. Patent Documents

Reissue of:

(64) Patent No.: **5,125,174**
 Issued: **Jun. 30, 1992**
 Appl. No.: **07/686,123**
 Filed: **Apr. 15, 1991**

Related U.S. Application Data

(63) Continuation of application No. 08/268,195, filed on Jun. 29, 1994, now abandoned, which is an application for the reissue of Pat. No. 5,125,174.

(51) **Int. Cl.**
E01H 5/04 (2006.01)
E01H 5/06 (2006.01)

(52) **U.S. Cl.**
 USPC 37/231; 37/235; 37/270

(58) **Field of Classification Search**
 USPC 37/231, 235, 270
 See application file for complete search history.

(56) **References Cited**

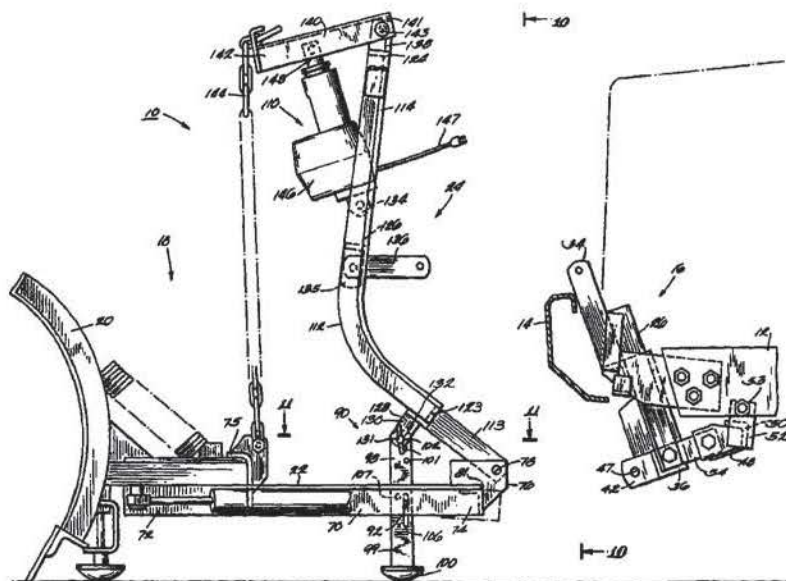
To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/013,073, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Matthew C. Graham

(57) **ABSTRACT**

A detachable snowplow blade lift assembly including a mounting frame permanently connected to the vehicle frame. A snowplow assembly including an A-frame and a snowplow blade mounted on the A-frame is pivotally connected to the mounting frame. A lift frame assembly including a lift actuator mechanism for raising and lowering the A-frame and snowplow blade is pivotally connected to the A-frame for rotation about a pivot axis. The snowplow blade lift assembly also includes a mounting arrangement for releasably connecting the A-frame and lift frame as a unit to the vehicle for pivotable movement of the A-frame relative to the vehicle and to the lift frame about the pivot axis. The A-frame mount affording pivotal movement of the A-frame and the lift frame about a common pivot axis provides a snowplow blade lift assembly which can be attached to, and detached from, the mounting frame as a unit and which has the capacity to stack snow.

Attention is directed to the decision of *Douglas Dynamics, Lic v. Buyers Products Company*, US District Court Civil Docket - Western Wisconsin 3:09cv261 relating to this patent. This reexamination may not have resolved all questions raised by this decision. See 37 CFR 1.552(c) for *ex parte* reexamination and 37 CFR 1.906(c) for *inter partes* reexamination.



US RE35,700 C1

1

2

**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

The patentability of claims 45, 47, 48, 49 and 51 is
confirmed.

Claims 1-44, 46, 50 and 52-56 were not reexamined.

* * * * *

JA124

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

**NOTICE OF ENTRY OF
JUDGMENT ACCOMPANIED BY OPINION**

OPINION FILED AND JUDGMENT ENTERED: 05/21/2013

The attached opinion announcing the judgment of the court in your case was filed and judgment was entered on the date indicated above. The mandate will be issued in due course.

Information is also provided about petitions for rehearing and suggestions for rehearing en banc. The questions and answers are those frequently asked and answered by the Clerk's Office.

No costs were taxed in this appeal.

Regarding exhibits and visual aids: Your attention is directed Fed. R. App. P. 34(g) which states that the clerk may destroy or dispose of the exhibits if counsel does not reclaim them within a reasonable time after the clerk gives notice to remove them. (The clerk deems a reasonable time to be 15 days from the date the final mandate is issued.)

FOR THE COURT

/s/ Jan Horbaly

Jan Horbaly
Clerk

cc: Jay Reed Campbell
Nicholas J. Gingo
Mark Johnson
Aaron T. Olejniczak
George Solveson
Todd Roberts Tucker
Edward R. Williams Jr.

11-1291 - Douglas Dynamics v. Buyers Products Company
United States District Court for the Western District of Wisconsin, Case No. 09-CV-0261

JA6894

United States Court of Appeals for the Federal Circuit

DOUGLAS DYNAMICS, LLC,
Plaintiff-Appellant,

v.

BUYERS PRODUCTS COMPANY,
Defendant-Cross Appellant.

2011-1291, 2012-1046, -1057, -1087, -1088

Appeals from the United States District Court for
the Western District of Wisconsin in No. 09-CV-0261,
Judge William M. Conley.

Decided: May 21, 2013

AARON T. OLEJNICZAK, Andrus, Sceales, Starke &
Sawal, LLP, of Milwaukee, Wisconsin, argued for plain-
tiff-appellant. With him on the brief were GEORGE H.
SOLVESON and EDWARD R. WILLIAMS, JR.

TODD R. TUCKER, Renner, Otto, Boisselle & Sklar,
LLP, of Cleveland, Ohio, argued for defendant-cross
appellant. With him on the brief were JAY R. CAMPBELL,
MARK C. JOHNSON and NICHOLAS J. GINGO.

Before RADER, *Chief Judge*, NEWMAN and MAYER, *Circuit
Judges*.

Opinion for the court filed by *Chief Judge* RADER.

Dissenting opinion filed by *Circuit Judge* MAYER.

RADER, *Chief Judge*.

Douglas Dynamics, LLC (Douglas) sued Buyers Products Co. (Buyers) for infringement of several patents related to snowplow mounting assemblies. The United States District Court for the Western District of Wisconsin granted summary judgment of non-infringement of U.S. Patent No. Re. 35,700 ('700 Patent) in favor of Buyers. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 747 F. Supp. 2d 1063 (W.D. Wis. 2010). Following a jury verdict that found U.S. Patent No. 5,353,530 ('530 Patent) and U.S. Patent No. 6,944,978 ('978 Patent) valid and infringed, the district court denied Douglas a permanent injunction and assigned an ongoing royalty. Because the district court applied an erroneous claim construction in granting summary judgment of non-infringement of claim 45 of the '700 Patent, this court reverses. This court also reverses the denial of a permanent injunction against continued infringement of the '978 Patent, and remands for entry of a permanent injunction consistent with this opinion. This court also vacates the district court's ongoing royalty rate for the '530 Patent and the '978 Patent, and remands to establish a new pre-injunction ongoing royalty rate consistent with this opinion. Because the '530 patent has expired, any permanent injunction as to this patent is now moot, and the ongoing royalty ceases to apply after the date of expiration.

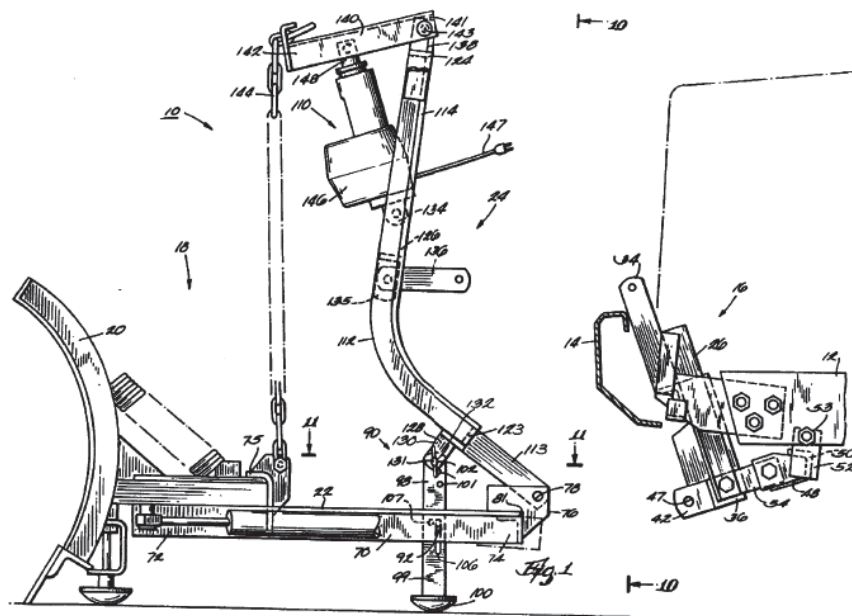
I.

Douglas and Buyers both manufacture snowplow assemblies for mounting on the front of a truck. These companies compete against one another for sales of those assemblies. Douglas commands about sixty percent of the snowplow market and "is recognized as producing good quality, innovative snowplows." J.A. 5. Buyers entered the market in 2007, selling less expensive snowplow

DOUGLAS DYNAMICS v. BUYERS PRODUCTS 3
 assemblies, which Douglas accuses of infringement. By 2010, Buyers had increased its market share to about 5%.

Douglas's '700 Patent claims a snowplow assembly that can be conveniently mounted on a vehicle and removed as a single unit. The patented features allow the user to remove heavy portions of the snowplow assembly from the front of the vehicle when the plow is not in use, thus reducing stress on the vehicle's suspension. Additionally, the inventive mounting frame does not extend beyond the vehicle's bumper upon removal of the snowplow assembly. This feature reduces the likelihood the mounting frame will inadvertently cause damage because it protrudes beyond the front bumper. Prior art removable assemblies either left a lifting mechanism protruding from the front of the vehicle, required numerous disassembly steps, or required storage in separate parts that could be lost or damaged.

Figure 1 of the '700 Patent depicts a preferred embodiment of the assembly in which the snowplow blade (20) is fixed to an A-frame (22). The A-frame connects to a lift frame (24) via a chain (144) and a mounting plate (76). On the right-hand side of the figure is the mounting frame (16), which can be attached behind the front bumper of a truck. Figure 1 depicts the assembly in the unmounted position, in which the assembly is detached from the mounting frame.



Douglas asserted independent claims 1, 38, and 45 of the '700 Patent against Buyers's SnowDogg Snowplows.

Claim 1 recites:

1. A vehicle mounted snowplow blade assembly comprising

a vehicle having a frame member and a bumper,

a mounting frame fixed to the frame member and located generally behind the bumper,

a snowplow blade assembly including an A-frame and a snowplow blade fixed to the A-frame,

a lift frame supported by the A-frame, and

mounting means for selectively connecting the A-frame to the mounting frame for pivotable movement about a generally horizontally extending pivot axis and for affording removal of the A-frame and the lift frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

'700 Patent col. 13 ll. 27–42 (emphases added). Independent claim 38 is essentially the same as claim 1.

The district court held that the limitation “a lift frame supported by the A-frame” of claims 1 and 38 requires the A-frame to support the lift frame “in both the mounted and unmounted states.” *Douglas Dynamics*, 747 F. Supp. 2d at 1088. Because Buyers's snowplow assemblies have the lift frame supporting the A-frame—the opposite of the claimed configuration—the district court granted summary judgment of noninfringement. *Id.*

Unlike claims 1 and 38, claim 45 of the '700 Patent does not require that the lift frame (also referred to as a

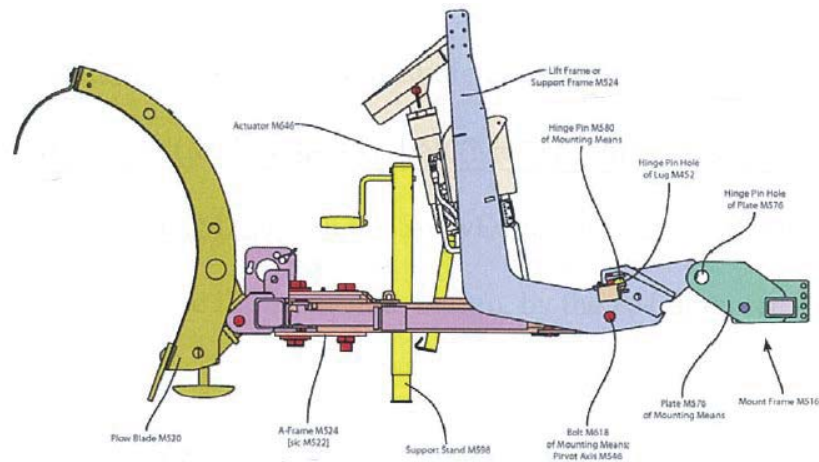
DOUGLAS DYNAMICS v. BUYERS PRODUCTS 5
“support frame”) be supported by the A-frame. Claim 45
recites:

45. A vehicle mounted snowplow blade assembly
comprising
a vehicle having a frame member and a bumper,
a mounting frame fixed to the frame member and
located generally behind the bumper,
a snowplow blade assembly including an A-frame
and a snowplow blade fixed to the A-frame,
a support frame connected to the A-frame, and
wherein the A-frame and the support frame are
connected to the mounting frame for pivotable
movement of the A-frame about a generally hori-
zontally extending pivot axis and for affording
removal of the A-frame and the support frame
from the mounting frame as a unit so as to leave
the mounting frame on the vehicle and behind the
bumper.

’700 Patent col. 18 ll. 42–57 (emphases added).

The district court construed the limitation “wherein the A-frame and the support frame are connected to the mounting frame” to require that the A-frame and the support frame each be directly connected to the mounting frame. Specifically, the court held that “the invention described in claim 45 requires that the A-frame and the mounting frame each have structures directly attached to them in some manner, such as through welding, that serve as connection points between the two frames.” *Douglas Dynamics*, 747 F. Supp. 2d at 1093.

In Buyers’s accused products, the A-frame connects to the support frame, which in turn connects to the mounting frame. *Id.* at 1092. The figure below shows Buyers’s snowplow assembly, illustrating the indirect connection between the A-frame (pink) and the mounting frame (green) via the support frame (blue).



II.

Claim construction is a matter of law which this court reviews without deference. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). “This court reviews the district court’s grant or denial of summary judgment under the law of the regional circuit.” *Serdarevic v. Advanced Med. Optics, Inc.*, 532 F.3d 1352, 1362 (Fed. Cir. 2008). In this case, the law of the United States Court of Appeals for the Seventh Circuit draws all reasonable inferences in favor of the non-movant in summary judgment cases and determines whether the district court correctly concluded that no reasonable jury could find in favor of the moving party. *See Stoner v. Wisconsin Dep’t of Agric., Trade & Consumer Prot.*, 50 F.3d 481, 484 (7th Cir. 1995).

This court finds no error in the district court’s construction of claims 1 and 38 as requiring the A-frame to support the lift frame in both the mounted and unmounted states. As the district court noted, claim 9, which depends from claim 1, specifically refers to a state “when

DOUGLAS DYNAMICS v. BUYERS PRODUCTS

7

the A-frame is not connected to the mounting frame.” ’700 Patent col. 14 ll. 11–14. The inventors surely knew ways to recite a limitation that applies only to one state or the other, and the selective reference to the unmounted state in dependent claim 9 implies that claim 1 encompasses both states. Because claims 1 and 38 require the A-frame to support the lift frame in both the unmounted and mounted positions, the district court correctly granted summary judgment of noninfringement to Buyers’s snowplows.

The district court erred, however, in construing the term “connected to” in claim 45 to require a *direct* connection between the A-frame and the mounting frame. The plain language of the claim counsels against this narrow interpretation. “[T]he words of a claim ‘are generally given their ordinary and customary meaning’ . . . that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which [it] appears, but in the context of the entire patent, including the specification.” *Id.* at 1313. While claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims. *Id.* at 1323.

The ordinary meaning of “connected to” encompasses indirect linkages. Indeed, the specification uses variations of the term “connect” to describe indirect connections. For example, the specification states that the snowplow blade “is *connectable* to the mounting frame . . . *through* an A-frame.” ’700 Patent col. 4 ll. 49–57 (emphasis added); *see also* col. 10 ll. 61–64 (explaining the lift arm moves the A-frame and snowplow blade by way of a “chain connection”). The ’700 Patent does not at any point limit the connection between the A-frame and mounting frame to a “direct” connection.

The district court erred by reading claim 45 narrowly to encompass only those connections between the A-frame and the mounting frame specifically described in the specification. *Douglas Dynamics*, 747 F. Supp. 2d at 1093; *see also id.* at 1089–91. The court recognized that the customary meaning of the claim language encompassed indirect connections. Indeed, the trial court opined that “in a very general sense the A-frame is ‘connected’ to the mounting frame” in Buyers’ SnowDogg snowplow assemblies. *Id.* at 1091. Nonetheless, because the specification does not depict the A-frame connected to the mounting frame only by way of the lift frame, and does not explicitly state that the lift frame can be viewed as connecting the A-frame to the mounting frame, the district court found such a configuration outside the scope of the claims. *Id.* at 1089.

To the contrary, the district court’s construction would exclude a preferred embodiment of the invention. *Douglas Dynamics*, 747 F. Supp. 2d at 1089. Figure 6 depicts the lift frame connected to the mounting frame not “directly,” but via an intermediate removable hitch arm. ’700 Patent Fig. 6 & col. 6 ll. 48–64. As shown in Figure 7, this L-shaped hitch arm is separate from both the mounting frame and the lift frame, but serves to indirectly connect the two frames together. *Id.* Fig. 7.

Buyers and the district court suggest that construing claim 45 to encompass connection of the A-frame to the mounting frame via the support frame renders superfluous a limitation requiring the A-frame to be connected to the mounting frame. Specifically, claim 45 recites “a support frame connected to the A-frame, and wherein the A-frame *and* the support frame are connected to the mounting frame . . .” *Id.* col. 18 ll. 50–52 (emphasis added). Because claim 45 already requires connection between the support frame and the A-frame, the district court found it would be redundant to state that both the “A-frame *and* the support frame are connected to the mounting frame” unless separate, direct connections were

DOUGLAS DYNAMICS v. BUYERS PRODUCTS 9
intended. *Id* (emphasis added); see *Douglas Dynamics*, 747 F. Supp. 2d at 1093. The court reasoned that simply reciting a connection between the support frame and the mounting frame would necessarily imply an indirect connection between the A-frame and the mounting frame. See *Douglas Dynamics*, 747 F. Supp. 2d at 1093.

This court does not view the language as superfluous. Rather, claim 45 requires the A-frame and support frame *unit* to connect to the mounting frame. This arrangement allows “pivotable movement of the A-frame about a generally horizontal extending pivot axis.” This array also permits “removal of the A-frame and the support frame as a unit.” ’700 Patent col. 18 ll. 52–55. Claim 45 thus recites functional requirements for the connection between the mounting frame and the A-frame/support frame unit. These requirements can be met by connecting either the A-frame or the support frame, or both, to the mounting frame in the appropriate manner.

In sum, the correct construction of the term “connected to” in claim 45 is not limited to direct connections. The record shows that Buyers’s SnowDogg snowplow assemblies include an A-frame connected to a support frame with the support frame then connected to a mounting frame. See *Douglas Dynamics*, 747 F. Supp. 2d. at 1092. Buyers has not presented any other arguments against infringement of claim 45. Accordingly, this court finds the accused products meet every limitation of claim 45 as properly construed. Therefore, this court reverses the grant of summary judgment of noninfringement and directs the district court to enter summary judgment of infringement in favor of Douglas.

III.

The district court denied Douglas’s request for a permanent injunction against infringement of the ’530 and ’978 Patents, even though both patents were found infringed and not invalid after summary judgment motions and a jury trial. On appeal, Buyers concedes validity and infringement of those patents but contends the district

court properly denied a permanent injunction because Buyers does not “directly compete” with Douglas and because the ’530 and ’978 Patents cover only some components of the accused snowplow assemblies.

While this case was on appeal, the ’530 Patent expired. Therefore, an injunction on the technology covered by that patent is moot. The ’978 Patent on the other hand remains in force, and for the following reasons, this court reverses the denial of an injunction as to that patent.

This court reviews the denial of a permanent injunction for an abuse of discretion. *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 861 (Fed. Cir. 2010). To be entitled to a permanent injunction, a patentee must show: (1) it has suffered an irreparable injury; (2) remedies available at law are inadequate to compensate for that injury; (3) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) the public interest would not be disserved by a permanent injunction. *Id.* (citing *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006)).

Here, the district court concluded that “Douglas has failed to make even a threshold showing of irreparable harm.” *Douglas Dynamics, LLC v. Buyers Prods Co., (Denial of Permanent Injunction Order)*, No. 09-CV-261 (W.D. Wis. Feb. 25, 2011). Although “the parties here compete for sales of snowplow truck assemblies, along with a number of other manufacturers,” the district court found that Douglas suffered no injury because Douglas failed to show it was losing sales or market share to Buyers. The district court relied on evidence that persons willing to pay for a Douglas snowplow were unlikely to purchase a Buyers snowplow as a substitute, and that Douglas’s market share increased about 1% a year after Buyers introduced its infringing snowplows.

Simply because a patentee manages to maintain a profit in the face of infringing competition does not automatically rebut a case for irreparable injury. Irreparable

DOUGLAS DYNAMICS v. BUYERS PRODUCTS

11

injury encompasses different types of losses that are often difficult to quantify, including lost sales and erosion in reputation and brand distinction. Here, the district court likened Douglas's snowplow to a Mercedes Benz S550 and Buyers's snowplow to a Ford Taurus. *Id.* Indeed, buyers interested in purchasing the Mercedes, when presented with both choices, would not likely switch to the Ford and vice versa. However, if the Ford made its place in the market by infringing on the intellectual property of the Mercedes and capitalized on its similarity to the better product, then the harm to the Mercedes product might go beyond a simple counting of lost sales—some of which would occur anyway if the Ford marketed itself effectively as a “Mercedes at half the price.” The Mercedes would lose some of its distinctiveness and market lure because competitors could contend that they had “similar features” without noting that those features infringe Mercedes's proprietary technologies.

Furthermore, the fact that Douglas's market share increased 1% a year after Buyers introduced its infringing snowplow is, at least in this case, immaterial. The record shows that Douglas dedicates significant amounts of time and money towards marketing and sales, engineering, and research and development. Over the years, it has earned itself a reputation in the marketplace as an innovator and trusted supplier of quality snowplows. Stated differently, even with a Ford Taurus announcing that it possessed similar features on the market, Mercedes could maintain or increase its market share for a variety of reasons.

The district court also made a clear error of judgment in its analysis of Douglas's reputation loss. The district court found that Douglas had a reputation as an innovator, yet determined there was no injury because there was no evidence that interested consumers confused the two companies. Even absent consumer confusion, however, there can still be harm to a company's reputation, particularly its perception in the marketplace by customers, dealers, and distributors. As just one example, Douglas's

reputation as an innovator will certainly be damaged if customers found the same “innovations” appearing in competitors’ snowplows, particularly products considered less prestigious and innovative. Furthermore, as Buyers’s expert agreed, Douglas’s reputation would be damaged if its dealers and distributors believed it did not enforce its intellectual property rights. Lastly, the evidence shows that Douglas had never licensed the infringed patents, and intentionally chose not to, so that it could maintain market exclusivity. Exclusivity is closely related to the fundamental nature of patents as property rights. It is an intangible asset that is part of a company’s reputation, and here, Douglas’s exclusive right to make, use, and sell the patented inventions is under attack by Buyers’s infringement.

Where two companies are in competition against one another, the patentee suffers the harm—often irreparable—of being forced to compete against products that incorporate and infringe its own patented inventions. The evidence submitted by Douglas leads this court to conclude Douglas has suffered irreparable injury from Buyers’s infringement.

In regard to the remaining equitable factors, this court concludes that, on balance, they also favor entry of a permanent injunction.

This court finds remedies at law inadequate to compensate Douglas for at least the reputation loss Douglas has suffered from Buyers’s infringement. Furthermore, this court again disagrees with the district court that Douglas should suffer some penalty for managing through great effort to maintain market share in the face of infringing competition. More relevant is the rise in Buyers’s market share from zero to about 5% in three years while infringing Douglas’s patents. This record evidence underscores the profitability of infringement and suggests that mere damages will not compensate for a competitor’s increasing share of the market, a market which Douglas competes in, and a market that Douglas has in part

DOUGLAS DYNAMICS v. BUYERS PRODUCTS

13

created with its investment in patented technology. Lastly, the district court clearly erred in continuing to characterize the '530 and '978 Patents as “minor” even though the '530 Patent is Douglas’s only patent that covers the embodiment of the attachment/detachment technology used by Buyers and by Douglas’s own Minute Mount products. In fact, the record shows that Buyers’s initial attempts to design-around the '530 Patent failed. J.A. 8.

In balancing the hardships between the parties, the district court concluded that “at best, [it was] a wash for Douglas” because Douglas did not lose sales or market share while Buyers would only have to “junk its unsold stock of infringing snowplow assemblies” and design around the patents. J.A. 9-10. In this connection, Buyers represented to the district court that its new design around was ready for implementation. J.A. 8. Having concluded that Douglas has suffered irreparable injury, the district court clearly erred in its balance of the hardships. If indeed Buyers had a non-infringing alternative which it could easily deliver to the market, then the balance of hardships would suggest that Buyers should halt infringement and pursue a lawful course of market conduct.

Finally, regarding the public interest, this court disagrees with the district court’s reasoning that “the public may well be better served by having a new competitor, selling cheaper snowplow assemblies in what appears may be an untapped market segment.” J.A. 10. Of course, any infringer represents some form of competition with the originator of new technology. Moreover this new “competitor” will often find it easier to avoid the costs and risks of research and development and just “compete” by infringement.

This court agrees with the general premise that competition serves the public interest. Among other things, it ensures competitive pricing and fosters innovation. In the present case, however, Buyers is competing in the marketplace using a competitor’s patented technology. For

this reason, it has the advantage of undercutting prices and entering the “untapped market segment” of cheap snowplows. While the general public certainly enjoys lower prices, cheap copies of patented inventions have the effect of inhibiting innovation and incentive. This detrimental effect, coupled with the public’s general interest in the judicial protection of property rights in inventive technology, outweighs any interest the public has in purchasing cheaper infringing products. In sum, the public has a greater interest in acquiring new technology through the protections provided by the Patent Act than it has in buying “cheaper knock-offs.”

IV.

In regard to the reasonable royalty award for the ’530 and ’978 Patents, this court vacates and remands for the following reasons. First, the district court abused its discretion by applying the infamous 25% rule of thumb, which this court held in *Uniloc* was fundamentally flawed. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011). Second, the district court clearly erred by limiting the ongoing royalty rate based on Buyers’s profit margins. This court has held that an infringer’s net profit margin is not the ceiling by which a reasonable royalty is capped. *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1338 (Fed. Cir. 2004). The infringer’s selling price can be raised if necessary to accommodate a higher royalty rate, and indeed, requiring the infringer to do so may be the only way to adequately compensate the patentee for the use of its technology. Thus, the district court clearly erred by ensuring the ongoing royalty rate it awarded would “leave some room for profit” by Buyers at its current prices.

V.

For the forgoing reasons, this court reverses the grant of summary judgment of noninfringement as to claim 45 of the ’700 Patent. This court reverses the denial of a permanent injunction against continued infringement of

DOUGLAS DYNAMICS v. BUYERS PRODUCTS 15
the '978 Patent and instructs the district court to enter a
permanent injunction consistent with this opinion. This
court also vacates and remands the award of an ongoing
royalty for the '530 and '978 Patents.

**REVERSED-IN-PART, VACATED-IN-PART, AND
REMANDED.**

United States Court of Appeals for the Federal Circuit

DOUGLAS DYNAMICS, LLC,
Plaintiff-Appellant,

v.

BUYERS PRODUCTS COMPANY,
Defendant-Cross Appellant.

2011-1291, 2012-1046, -1057, -1087, -1088

Appeals from the United States District Court for
the Western District of Wisconsin in No. 09-CV-0261,
Judge William M. Conley.

MAYER, *Circuit Judge*, dissenting

I respectfully dissent. Because Douglas Dynamics, LLC (“Douglas”) failed to meet the prerequisites for injunctive relief set forth in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006), the district court properly denied its request for a permanent injunction. The trial court also correctly determined that the snowplow assemblies manufactured by Buyers Products Company (“Buyers”) do not infringe claim 45 of U.S. Reissue Patent No. 35,700 (the “700 patent”) because that claim requires a direct connection between the snowplow frames. I would affirm.

I.

Because Douglas “failed to make even a threshold showing of irreparable harm or of the inadequacy of a monetary damage award,” *Douglas Dynamics, LLC v. Buyers Prods. Co.*, No. 09-CV-261, slip op. at 2 (W.D. Wis. Feb. 25, 2011) (“*Injunction Order*”), the trial court correctly declined to enjoin Buyers from selling the snowplow assemblies that had been found to infringe U.S. Patent No. 6,944,978 (the “978 patent”). The majority errs in reversing the denial of injunctive relief based on its assumption that “[w]here two companies are in competition against one another, the patentee suffers the harm—often irreparable—of being forced to compete against products that incorporate and infringe its own patented inventions.” *Ante* at 12. In the wake of *eBay*, a patentee may no longer rely on the presumption that irreparable injury will result from the continued sale of infringing devices. “An injunction is a drastic and extraordinary remedy, which should not be granted as a matter of course.” *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2761 (2010); *see also Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982) (“The Court has repeatedly held that the basis for injunctive relief in the federal courts has always been . . . the inadequacy of legal remedies.”). Where, as here, a patentee supplies no evidence that money damages are inadequate to redress any injury from future sales of an infringing product, a trial court acts well within its discretion in denying injunctive relief. *See Voda v. Cordis Corp.*, 536 F.3d 1311, 1319 (Fed. Cir. 2008) (emphasizing that a district court’s decision to deny a permanent injunction is reviewed for abuse of discretion).

Prior to *eBay*, the presumption was that a patentee was entitled to a permanent injunction if he established that his patent was not invalid and infringed. *See, e.g., Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1247

(Fed. Cir. 1989) (“It is the general rule that an injunction will issue when infringement has been adjudged, absent a sound reason for denying it.”). *eBay*, however, rejected this approach, making clear that a permanent injunction should issue only if the traditional four-factor test for injunctive relief is satisfied. 547 U.S. at 391. Under this four-factor test, a litigant is entitled to a permanent injunction only if he establishes that: (1) he has suffered irreparable injury; (2) monetary damages are inadequate to compensate for that injury; (3) considering the balance of hardships between the parties, a remedy in equity is warranted; and (4) the public interest would not be “dis-served” by the issuance of a permanent injunction. *Id.*

Here, the trial court, in a thorough and well-reasoned opinion, correctly concluded that Douglas failed to meet the *eBay* prerequisites for injunctive relief. At trial, Douglas was unable to point to a single snowplow sale that had been lost to Buyers. This is because Douglas and Buyers occupy different market segments, with Douglas competing at the high end of the snowplow market and Buyers selling to consumers in the low-cost segment of the market. As the trial court explained, “the parties’ competition can be likened to that of Mercedes Benz and Ford, with [Douglas] snowplows being like the former and Buyers’ the latter. While both car companies compete in an open market for sedan-style cars, it is unlikely someone in the market for a Mercedes Benz S550 would also consider purchasing a Ford Taurus, or vice versa.” *In-junction Order*, slip op. at 3.

Because Douglas and Buyers compete in different market segments, a customer who was considering the purchase of a Douglas plow would be unlikely instead to purchase a Buyers plow. *See id.* Significantly, as of 2010, Buyers was estimated to have only a 5% share of the snowplow market. Douglas, by contrast, maintained a

market share of approximately 60%, even after Buyers entered the market. Indeed, since the time Buyers introduced its snowplows into the market in 2007, Douglas' share of the snowplow market has actually increased. *See id.* at 4. Douglas is unlikely to suffer any irreparable injury from future snowplow sales by Buyers because the two parties are not direct competitors. *Injunction Order*, slip op. at 4. Instead, as the trial court correctly determined, “[v]irtually all of the hard data introduced at trial contradicts [Douglas’] claim that Buyers is one of its three main competitors.” *Id.* Given that Douglas and Buyers are not direct competitors and Douglas was unable to produce any credible evidence that it was likely to lose profits or market share as a result of future sales of Buyers’ low-end plows, the trial court was fully justified in concluding that the failure to issue a permanent injunction would not result in irreparable harm. *See ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1339 (Fed. Cir. 2012) (concluding that there was no irreparable harm where the parties did “not share a customer base”).

Nor was there any reliable evidence establishing that money damages were inadequate to redress Douglas’ injury. Although Douglas argues that its reputation in the industry will be permanently damaged if it is not granted injunctive relief, this contention is belied by the record. As the trial court correctly noted, “Douglas offered no evidence that Buyers’ use of the patented technology in the . . . ’978 patent[] ever caused a customer to believe that Buyers’ snowplows were somehow connected with, or a version of, [Douglas’] snowplows.” *Injunction Order*, slip op. at 5. Furthermore, surveys were introduced at trial which showed that snowplow distributors viewed Douglas’ plows as very high quality products, but saw Buyers’ plows as low quality products. This evidence served to “confirm[] that distributors selling snowplow assemblies

and the customers buying them readily differentiated between the two brands based principally on quality.” *Id.* Significantly, the record contains nothing to indicate that Douglas’ reputation and goodwill in the snowplow market would be damaged by the sale of Buyers’ remaining infringing snowplows. *Id.* at 6. Contrary to the majority’s assertions, the possibility that “Douglas’s reputation [could] be damaged if its dealers and distributors believed it did not enforce its intellectual property rights,” *ante* at 12, is too speculative to support a finding of irreparable injury. Furthermore, although Douglas complains that its investment in developing the technology disclosed in the ’978 patent will be squandered if it is not granted injunctive relief, there is no evidence demonstrating that this investment could not be readily recouped pro rata through imposition of a reasonable royalty. *See ActiveVideo*, 694 F.3d at 1338-39.

Despite the fact that the record contains no evidence indicating that Douglas is likely to lose profits or market share as a result of the sale of Buyers’ remaining plows, the majority concludes that irreparable harm should be presumed because a patentee will “often” suffer irreparable injury when it is “forced to compete against products that incorporate and infringe its own patented inventions.” *Ante* at 12. To the contrary, however, where infringing sales are made by a party that is not a direct competitor and there is no evidence of lost profits or erosion of market share, the harm suffered by a patentee generally will not be irreparable. Instead, where the damages caused by infringement are “quantifiable and compensable by an ongoing royalty,” *ActiveVideo*, 694 F.3d at 1339, there is no irreparable injury and therefore no need for injunctive relief. The majority’s analysis fails to recognize “that *eBay* jettisoned the presumption of irreparable harm as it applies to determining the appropriateness of injunctive relief,” and that “a successful

patent infringement plaintiff can no longer rely on presumptions or other short-cuts to support a request for a permanent injunction.” *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1149 (Fed. Cir. 2011). Here, because Douglas failed to provide any evidence that it was likely to lose profits or market share to Buyers or that money damages were inadequate to compensate for the sale of Buyers’ remaining infringing plows, the trial court correctly declined to grant a permanent injunction. See *ActiveVideo*, 694 F.3d at 1338 (“Straight-forward monetary harm . . . is not irreparable harm.” (footnote omitted)).

II.

The majority errs, moreover, in setting aside the district court’s determination that Buyers’ snowplow assemblies do not infringe claim 45 of the ’700 patent. The trial court’s determination that claim 45’s “connected” limitation requires a direct connection between the A-frame and the mounting frame is fully supported by both the plain claim language and the other intrinsic evidence.

Claim 45 specifically provides that the A-frame is “connected to the mounting frame,” clearly indicating that the two frames are attached to each other. ’700 patent col. 18 ll. 51-52; see *Cat Tech LLC v. TubeMaster, Inc.*, 528 F.3d 871, 884 (Fed. Cir. 2008) (“The appropriate starting point for claim construction is always with the language of the asserted claim itself.” (citations and internal quotation marks omitted)). In Buyers’ snowplow assemblies, however, the A-frame is not attached to the mounting frame, but is instead attached to a support frame, which is then connected to the mounting frame.

Douglas acknowledges that in Buyers’ accused plows the A-Frame is not directly connected to the mounting frame. It contends, however, that claim 45’s “connected”

limitation is satisfied because the A-frame is connected to the support frame, and the support frame is then connected to the mounting frame. In essence, Douglas argues that the A-frame and the mounting frame are “connected” to each other because they are both attached to a third part. Under Douglas’ strained interpretation of the term “connected,” the snowplow operator could be deemed to be “connected” to the snowplow blade because the operator’s hands rest on the steering wheel and a series of intermediate structures “connect” the steering wheel to the snowplow blade.

Nothing in the specification supports Douglas’ tortured reading of the plain claim language. *See Bell Commc’ns Research, Inc. v. Vitalink Commc’ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995) (“[I]t is equally fundamental that claims are to be construed in the light of the specification[] and both are to be read with a view to ascertaining the invention.” (citations and internal quotation marks omitted)). To the contrary, the specification discloses only *direct* connections between the A-frame and the mounting frame. As the trial court correctly concluded, “[a] close examination of the specification . . . reveals that it teaches only connections between the [support] frame and the mounting frame and the A-frame and the mounting frame using structures attached directly onto those frames. Neither the specification nor any of the claim language refers to a more removed connection between an A-frame, [support] frame or mounting frame in which one frame’s connection to another occurs through a third frame.” *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 747 F. Supp. 2d 1063, 1089 (W.D. Wis. 2010).

Furthermore, where the specification describes an “indirect” connection between two parts, it specifically states that the two parts will be connected “through” a third structure:

A snowplow assembly including a snowplow blade . . . connectable to the mounting frame assembly *through an A-frame* which extends forwardly from the vehicle. A lift frame assembly is pivotally connected to the A-frame and is releasably connectable to the mounting frame assembly.

'700 patent col. 4 ll. 49-54 (diagram numbering omitted) (emphasis added). Simply put, the inventors used the word “connected” when they wished to describe two parts that were directly attached to each other. If, on the other hand, two parts were not directly attached to each other, but were instead indirectly attached through a third part, the inventors stated that the two parts were attached “through” that third part.* There is nothing in the specification which would support the majority’s view that two frames can be “connected” to each other simply because they are both attached to a third frame.

The situation here parallels *Searfoss v. Pioneer Consolidated Corp.*, 374 F.3d 1142, 1150 (Fed. Cir. 2004). There, the patentee argued that the word “connecting”

* Contrary to the majority’s assertions, *see ante* at 8, the trial court’s claim construction requiring a direct connection between the A-frame and the mounting frame does not exclude an embodiment disclosed in the specification. Although the majority contends that the snowplow assembly described in figures six and seven of the specification shows a support frame which is “indirectly” connected to a mounting frame through a hitch arm, the specification never states that this indirect attachment is a “connection.” By contrast, the specification makes clear that the *direct* connection between the lift arm assembly and the mounting means (which does not include an intermediate connection through a hitch arm) is a “connection.” *See* '700 patent col. 4 ll. 52-54.

could encompass both direct and indirect connections. *Id.* at 1146, 1150. We rejected this argument, however, explaining that the term “connecting” required a direct connection given that “every pertinent figure” contained in the specification “depict[ed] a *direct* connection” between the parts in question. *Id.* at 1150 (emphasis added). A similar analysis applies here. Claim 45 must be construed to require a direct connection between the A-frame and the mounting frame because the specification makes clear that the term “connected” refers to a direct connection between two frames. *See also Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1578 (Fed. Cir. 1996) (refusing to interpret the term “connected to” to encompass indirect connections between two parts).

Douglas’ argument that the term “connected” means “indirectly connected” cannot be correct because it would render other language in claim 45 superfluous. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”); *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed. Cir. 2004) (explaining that a claim construction which renders claim terms superfluous is generally disfavored). Claim 45 requires:

a support frame *connected* to the A-frame, and

wherein the A-frame and the support frame are *connected* to the mounting frame for pivotable movement of the A-frame about a generally horizontally extending pivot axis and for affording removal of the A-frame and the support frame from the mounting frame as a unit so as to leave the mounting frame on the vehicle and behind the bumper.

’700 patent col. 18 ll. 49-57 (emphasis added).

Claim 45 thus specifically requires that the A-frame be connected to the support frame. If the A-frame could be deemed to be “connected” to the mounting frame simply because it was attached to the support frame and the support frame was then attached to the mounting frame, there would be no need to additionally specify that the A-frame was connected to the mounting frame. If all terms in claim 45 are to be given meaning, the word “connected” must be interpreted to require a direct attachment between the A-frame and the mounting frame.

CERTIFICATE OF SERVICE

I hereby certify that on March 16, 2015, a copy of the foregoing Brief of Defendant-Appellant Buyers Products Company was filed by electronic means (through this Court's CM/ECF electronic filing system as to the non-confidential version or by email in .pdf format as to the confidential version).

Dated: March 16, 2015

/s/ Thomas H. Shunk
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CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B). This brief contains 13,481 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii). This brief complies with the typeface requirements of the Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). This brief has been prepared in a proportionally spaced typeface using Microsoft Office Word in 14-point Times New Roman font.

Dated: March 16, 2015

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